



REPORT  
OF  
THE GOVERNORS  
OF THE  
UNIVERSITY OF ALBERTA  
1953-54

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*To the Lieutenant Governor in Council*

SIR:

On behalf of the Governors of the University of Alberta, and in accordance with Section 28 of an Act respecting the University of Alberta, the undersigned have the honour to submit through the Minister of Education the Report of the University of Alberta, setting forth the revenue and expenditure for the year ending March 31, 1954, and investments as they stood at the end of the fiscal year.

Appended to this report is the Report of the President of the University, in which the academic work of the University for the year, July 1, 1953, to June 30, 1954, is dealt with in detail.

C. M. MACLEOD, Chairman  
A. STEWART, President

November 30, 1954





# Financial Statements

## UNIVERSITY OF ALBERTA BALANCE SHEET AS AT MARCH 31, 1954

STATEMENT A

### ASSETS

Buildings and equipment in service:			
Land, buildings and plant, Schedule No. 1 .....	\$12,050,744.56		
Furnishings and equipment, Schedule No. 2 .....	2,386,364.95		
			\$14,437,109.51
Loan receivable:			
Students' Union re Students' Union building, see contra .....			321,331.64
Investments:			
Provincial direct and guaranteed debentures at book value (market value \$206,500.00), Schedule No. 5 .....			197,530.00
Current:			
Cash on hand and in bank .....	\$	340,676.98	
Accounts receivable:			
Sundry debtors .....	\$	75,173.72	
Less: Allowance for doubtful accounts .....		2,500.00	
		\$ 72,673.72	
Government of the Province of Alberta re construction of buildings .....		194,191.80	
		266,865.52	
Accrued interest .....		4,604.16	
Merchandise held for resale, Schedule No. 4 .....		107,598.64	
			719,745.30
Prepaid expenses:			
Supplies on hand, Schedule No. 4 .....	\$	92,697.68	
Unexpired insurance .....		17,177.11	
Legal retainer fee .....		375.00	
Unemployment insurance stamps .....		168.22	
			110,418.01
Other assets:			
Livestock inventory .....	\$	26,411.00	
Deposit, Workmen's Compensation Board .....		8,564.00	
			34,975.00
			\$15,821,109.46
Trust:			
Investments, book value, Schedule No. 5:			
Government of Canada bonds, direct and guaranteed .....	\$1,371,300.00		
Provincial debentures, direct and guaranteed .....	444,500.00		
Corporation debentures .....	2,000.00		
Corporation shares .....	5,527.43		
	\$	1,823,327.43	
Cash on hand and in bank .....		303,976.48	
Loans receivable .....		99,471.20	
Agreement for sale .....		200.00	
Real estate, shares and sundry, nominal value .....		8.00	
Due from general account .....		5,684.71	
			2,232,937.82
			\$18,054,047.28

## LIABILITIES

### Capital and surplus:

Capital provided by the Government of the Province of Alberta .....	\$12,202,720.13	
Capital surplus .....	2,334,523.70	
	<u>                    </u>	\$14,537,243.83

### Loan payable:

Government of the Province of Alberta re Students' Union building, see contra .....		321,331.64
Agreement for purchase of leasehold .....		9,435.42

### Current:

Accounts payable .....	\$ 187,533.81	
Due to trust account .....	5,684.71	
	<u>                    </u>	193,218.52

### Deferred income:

Fees .....	\$ 6,851.35	
Other .....	3,135.00	
	<u>                    </u>	9,986.35

### Reserves:

Federal aid funds unexpended .....	\$ 230,193.56	
Lanad exchange .....	49,960.00	
University Athletic Board fees unexpended .....	22,187.16	
Library fees unexpended .....	20,004.77	
Premium on Rockefeller endowment .....	18,221.66	
Major alterations and repairs to faculty houses .....	12,000.00	
Workmen's Compensation Board .....	10,896.19	
Equipment for civil engineering .....	6,272.34	
Parking area at St. Stephen's College .....	3,856.34	
Dining room replacements .....	1,304.38	
Rink repairs .....	1,148.16	
Provincial Laboratory of Public Health, operating .....	58,115.50	
Operating, general .....	315,733.64	
	<u>                    </u>	749,893.70
		<u>                    </u>
		\$15,821,109.46

### Trust:

General endowment, Rockefeller foundation .....	\$ 500,000.00	
Scholarships:		
Escheated estates .....	\$508,380.44	
General .....	359,423.94	
	<u>                    </u>	867,804.38
Research .....		318,185.91
Students' grants and loans .....		131,712.06
General educational purposes .....		94,862.57
Pensions .....		53,599.39
Sundry:		
Administered by the University .....	\$ 75,417.46	
Held on behalf of others .....	191,356.05	
	<u>                    </u>	266,773.51
	<u>                    </u>	2,232,937.82
		<u>                    </u>
		<u>\$18,054,047.28</u>



Edmonton, Alberta, July 15, 1954

I have audited the books and records of the University of Alberta for the year ended March 31, 1954.

### Operating Results

Operations for the year under review resulted in a surplus of \$164,867.25. Details of operations are shown in Statement B.

The surplus for the year was transferred to operating reserve. Transactions within that reserve are set forth in Statement C.

Maintenance and upkeep of buildings used by the Faculty of Education in Edmonton and the branch of the University in Calgary have been provided by the Province direct.

### Financial Position

Buildings, plant, furnishings and equipment are stated on the Balance Sheet at original cost. No provision has been made for depreciation, but an independent appraisal completed during the year ended March 31, 1950, indicates that values have been maintained through repairs and renewals, which have been financed from revenue and reserve accounts.

Investments, general and trust, were verified by actual examination and agreed with the records of the University.

Capital and surplus transactions during the year are summarized hereunder:  
Capital provided by the Government of the Province of Alberta:

Balance as at April 1, 1953 .....	\$11,037,504.60	
Add:		
Advances during the year:		
Agriculture building .....	604,746.37	
Engineering building .....	320,000.00	
Banff school administration building .....	50,000.00	
South laboratory conversion .....	40,000.00	
Paving .....	45,637.92	
Other buildings and improvements .....	27,575.68	
Equipment .....	77,255.56	
		\$12,202,720.13

Capital surplus:

Balance as at April 1, 1953 .....	\$ 2,117,537.33	
Add:		
Acquired from trust and donated funds:		
Banff school administration building .....	142,463.96	
Equipment .....	30,743.58	
Library .....	1,130.99	
Provided from reserve funds:		
Equipment .....	11,727.66	
Income contributions:		
Buildings and equipment .....	3,358.51	
Library .....	27,561.67	
		2,334,523.70
		<u>\$14,537,243.83</u>

Subject to the foregoing, I certify that, in my opinion, the above Balance Sheet is properly drawn up so as to show the true financial position of the University of Alberta as at March 31, 1954, according to information and explanations given to me and as shown by the books of the University, and the accompanying Statement of Revenue and Expenditure correctly sets forth the result of operations for the year ended at that date.

C. K. HUCKVALE, F.C.A.,  
Provincial Auditor

## UNIVERSITY OF ALBERTA

## STATEMENT OF REVENUE AND EXPENDITURE

FOR THE YEAR ENDED MARCH 31, 1954

## REVENUE

## Grants:

## Province of Alberta:

General .....	\$1,700,000.00	
Debt charges, see contra .....	336,062.91	

## Government of Canada:

Federal aid .....	\$2,036,062.91	
	494,186.40	

\$2,530,249.31

## Fees:

Tuition, Schedule No. 7 .....	\$ 725,658.70	
Examination and special, net, Schedule No. 8 .....	6,568.43	

732,227.13

Interest on Rockefeller foundation endowment .....	\$ 15,000.00	
Deduct: Transferred to medical research trust .....	5,000.00	

10,000.00

Library fees, see contra .....		29,877.92
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University Athletic Board fees, see contra .....		15,640.22
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Operating departments net revenue, Schedule No. 21 .....		44,736.09
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\$3,362,730.67

## EXPENDITURE

Instructional salaries and direct expenses, net, Schedule No. 9 .....		\$2,033,532.30
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Maintenance of buildings, Schedule No. 10 .....		360,613.47
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Debt charges, see contra .....		336,062.91
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## Library:

Salaries and expenses, Edmonton, Schedule No. 12 .....	\$ 111,445.02	
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Salaries and expenses, Calgary, Schedule No. 17 .....	8,192.69	
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Provision for library accessions, see contra .....	29,877.92	
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149,515.63

Administrative salaries and expenses, Schedule No. 11 .....		115,108.43
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Upkeep of grounds, Schedule No. 13 .....		40,671.62
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## Other expenses:

Pension arrears, Schedule No. 14 .....	\$ 18,048.24	
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Student advisory services, Schedule No. 15 .....	15,655.35	
--	-----------	--

Provision for University Athletic Board expenses, see contra .....	15,640.22	
--	-----------	--

Calendars, scientific and other publications, Schedule No. 16 .....	13,520.32	
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Alumni office, Schedule No. 18 .....	7,135.49	
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Provost's office, Schedule No. 19 .....	7,010.01	
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Travelling expenses, instructional staff .....	5,238.94	
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First year committee .....	249.96	
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Exchange .....	231.26	
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82,729.89

## Public service departments net expenditure, as per

Statement No. 98 .....		77,835.24
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## Buildings and equipment purchased from income,

Schedule No. 6 .....		1,793.93
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1,793.93

## Surplus for the year ended March 31, 1954, transferred to

operating reserve .....		\$3,197,863.42
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\$ 164,867.25



UNIVERSITY OF ALBERTA  
STATEMENT OF OPERATING RESERVE  
FOR THE YEAR ENDED MARCH 31, 1954

STATEMENT C

Balance as at April 1, 1953 .....		\$ 235,147.77
Add:		
Adjustment in respect of previous years .....		5,787.96
		<u>\$ 240,975.43</u>
Deduct:		
Provision for:		
Land exchange .....	\$ 50,000.00	
Equipment for civil engineering .....	18,000.00	
Parking area at St. Stephen's College .....	10,000.00	
		<u>78,000.00</u>
		<u>\$ 162,935.73</u>
Add:		
Surplus for the year ended March 31, 1954 .....		164,867.25
		<u>\$ 327,802.98</u>
Deduct:		
Transfer to Provincial Laboratory of Public Health operating reserve:		
Excess of revenue over expenditure .....		12,069.34
		<u>12,069.34</u>
Balance as at March 31, 1954 .....		<u>\$ 315,733.64</u>

*To the Governors of the  
University of Alberta*

GENTLEMEN:

I have the honour to submit the following report on the work of the University of Alberta for the year ending June 30, 1954.

A. STEWART,  
President

# *Report of the President to Convocation*

October 31, 1953

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Although the population of the Province, and particularly of the City of Edmonton, has been increasing rapidly for a number of years, registrations at the University have not, until recently, reflected any part of this growth. The decline in student numbers, which continued until 1951-2, was explained by the graduation of student veterans. The withdrawal of veterans was not offset by a corresponding increase in the registration of civilian students. The relatively static number of new students entering the University has been attributed to the decline in the birth rate during the 'thirties', and to the attraction of employment opportunities. It has been pointed out also that the increase in population has consisted mainly of young people, whose children are not yet of university age.

In my report to Convocation last fall, I drew attention to a noticeable increase in the number of students entering the first year, and a corresponding increase in total registrations. This unexpected occurrence was traced to an increase in the number of high school students completing matriculation programs in Grade 12.

The same factor is responsible for a further rise in registrations in 1953-4. The number of new students in the first year has increased from 1,071 in 1952-3 to 1,146 in 1953-4, i.e. an increase of 75. Registrations in the senior years reflect the carry-over from the large freshman class in 1952-3. The combined effect is an increase of 205 full-time students to a total of 3,555 in 1953-4.

In the first year, major increases are apparent in Engineering and in Arts and Science. Total registration in Edmonton has reached 704 in Arts and Science, 686 in Education, and 609 in Engineering. The numbers attending the Calgary Branch show little change, with 53 students in Arts and Science, including Commerce, and 196 students in Education.

The increase in freshman registrations over two years must be taken as evidence of a definite trend. Population changes, in the last several years, have resulted in a marked increase in enrolments in the schools of this Province, giving rise to problems of which school boards, the Department of Education, teachers, parents, and taxpayers are acutely conscious. As yet the main impact has been experienced in the elementary grades, but large numbers are moving onward into the junior high school, and even into Grade 10. The advance guard of this movement is already at the doors of the University.

The University enrolments for the past two years indicate the cumulative effect on total registrations of a continuous increase in freshman numbers. Entries into the first year may be expected to increase at an accelerating rate. If this occurs, total registrations will rise sharply from year to year. On the basis of numbers of children now in the elementary grades in the schools of the Province, the number of students proceeding from the schools to institutions of higher education could double within the next ten years.



It is not too early to be giving consideration to this development, and to its implication for higher education in Alberta. At the request of the Board of Governors, the President has appointed a committee, drawn from the faculty, to make a preliminary study of these matters. The committee, under the chairmanship of Dr. W. G. Hardy, has been directed to report on the following:

1. The probable numbers of students proceeding to programs of studies beyond Grade 12 in the next twelve years.

2. The effect of the anticipated increase in numbers on the University under a continued policy of centralizing higher education in Edmonton.

3. Alternative policies of decentralization, including the establishment of other institutions, or branches of the University; and the affiliation of institutions, private or public, including junior colleges.

The committee will approach the problem from the point of view of effective educational practice, and with due consideration to the integration of high school, college, and university work so as to maintain the standards of degrees conferred in the Province.

It is unfortunate, during this initial stage of the new period of expansion in the Province, that the University cannot immediately increase its outturn of graduates. However, every effort is being made to extend educational services where there is demand for them. Members of Convocation are no doubt aware of the program of regular credit courses first offered in Edmonton under the Evening Division in 1952-3. The response was gratifying, and this year the program has been extended to include Calgary and Lethbridge. In the latter city the number registering was sufficient to justify offering classes in History and Household Economics. The University is pleased to have this opportunity to extend its work in the south of the Province.

In addition to the Edmonton evening courses for credit, the Extension Department is also offering in the fall term twelve non-credit evening classes. The total registration in these courses is 360. A new course in Petroleum Law has 70 students enrolled in it.

This Convocation is associated with two events of importance in the development of the University.

Later in the ceremony the first candidate for the degree of Doctor of Philosophy will be presented to the Chancellor by the Director of the School of Graduate Studies. It is a source of satisfaction that departments in the University can, through the reputation of their members and the facilities available to them, attract a number of scholars and research workers who wish to obtain advanced degrees from this institution.

Through the presentation of honorary degrees to four distinguished representatives of the engineering profession, this Convocation is associated with the official opening of the new Engineering Building, which took place last evening. With the increase in registrations in the Faculty of Engineering, the additional facilities are very welcome, and provide some temporary relief to pressures which are developing in other parts of the University organization. I am pleased to report, too, that excellent progress is being made with the new Agriculture Building, which will grace the north end of the campus.

# Report of the President to Convocation

May 14, 1954

It has been customary for the President to present at Convocation his report which, along with the reports from the Faculties and Departments, is later incorporated in the printed Report of the Board of Governors. This has presented a problem. Whereas the published report can reasonably be of some length, the report to Convocation should, in the nature of the occasion, be short.

You will not, I am sure, quarrel with the decision that the President's report to Convocation should be made as short as possible, so as not unduly to delay or interfere with the later and more important parts of the ceremony.

I am gratified to be able to report another satisfactory year, characterized by: an increased student body, which continued the tradition of successful student self-government in those matters under their jurisdiction; continued efforts by a loyal staff, in the classroom, in Committees, and in Councils, to maintain the academic standards of the institution; the pursuit of valuable research projects in a great variety of fields; the provision of additional needed physical facilities.

It has been customary in the President's report to Convocation to refer to the retiring members of the academic staff. There is special reason why this portion of the report should not be passed over lightly on this occasion.

This year four members of the staff, each with more than thirty years of service, retire from active duty. They are: Professor J. W. Campbell, Mathematics; Professor K. A. Clark, Mining and Metallurgy; Professor I. B. Morrison, Civil Engineering; Professor E. H. Strickland, Entomology.

The contribution of the faithful teacher is beyond measure, and no one can compute the consequences in enriched lives which flow from thirty years of dedicated service. To Professors Campbell, Clark, Morrison and Strickland we express our profound gratitude and our warm good wishes.

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Appended are tabular data concerning academic staff numbers; academic staff appointments and promotions; leave of absence; retirements, resignations; gifts; new scholarships, prizes and medals; staff publications; student registration; and reports of administrative officers.

**Table I—Academic Staff Numbers**

*Administrative Officers*

President .....	1
Assistant to the President .....	1
Deans of Faculties .....	7
Directors of Schools .....	5
Director of the Calgary Branch .....	1
Assistant Director of the Calgary Branch .....	1
Director of the Summer Session .....	1
Provost .....	1
Assistant Provost, Calgary Branch .....	1

Director of Student Advisory Services .....	1	
Dean of Women .....	1	
Librarian .....	1	
Superintendent of the University Hospital .....	1	
Registrar .....	1	
Assistant Registrar .....	2	
Alumni Secretary .....	1	
Bursar .....	1	
Accountant .....	1	
Assistant Accountant .....	1	
Purchasing Agent .....	1	
Wardens of Residence Halls .....	3	
	—	34
<i>Full-Time Teaching Staff</i>		
Professors .....	55	
Associate Professors .....	61	
Assistant Professors .....	76	
Lecturers .....	30	
Instructors .....	6	
	—	228
On leave of absence:		
Professors .....	3	
Associate Professors .....	3	
Assistant Professors .....	4	
Lecturers .....	4	
<i>Part-Time Teaching Staff</i>		
Professors .....	6	
Associate Professors .....	10	
Clinical Professors .....	8	
Assistant Professors .....	8	
Associate Clinical Professors .....	4	
Assistant Clinical Professors .....	1	
Lecturers .....	55	
Instructors .....	95	
Demonstrators in the Faculty of Education .....	184	
Demonstrators and Student Assistants .....	165	
	—	536
<i>Department of Extension</i>		
Director .....	1	
Assistant Professors .....	2	
Agricultural Secretary .....	1	
Supervisor of Visual Instruction .....	1	
Librarian .....	1	
	—	6
<i>Library</i>		
Librarian .....	1	
Assistant Librarians .....	9	
Assistants .....	7	
	—	17



<i>Industrial Laboratories</i>	
Director and Provincial Analyst .....	1
Assistant .....	1
	— 2
<i>Provincial Laboratory of Public Health</i>	
Provincial Bacteriologist and Director, Edmonton .....	1
Director, Calgary .....	1
Provincial Pathologist .....	1
Assistants .....	3
	— 6
<i>Other Staff</i>	
Dietitians .....	3
Radio Secretary .....	1
	— 4
Total .....	833
Less duplicates .....	38
	—
<i>Total Academic Staff</i> .....	795

**Table II—Academic Staff Appointments and Promotions**

*Faculty of Agriculture*

- Donald Robert Clandinin, M.S.A., Ph.D., from Associate Professor to Professor of Poultry Husbandry.
- Robert James Hilton, B.Sc., Ph.D., from Associate Professor to Professor of Horticulture.
- John Alfred Toogood, B.Sc., Ph.D., from Assistant to Associate Professor of Soils.
- Clayton Oscar Person, M.A., P.A., Assistant Professor of Cytology.
- Robert Hironaka, M.Sc., Lecturer in Animal Science.
- Brian Hocking, B.Sc., M.Sc., Ph.D., A.R.C.Sc., from Associate Professor to Professor of Entomology.
- Robert Hugh Knowles, B.S.A., from Assistant to Associate Professor of Horticulture.
- Roy Torgny Berg, B.Sc., from Lecturer to Assistant Professor of Animal Husbandry.

*Faculty of Arts and Science*

- Matthew Henry Scargill, B.A., Ph.D., from Assistant to Associate Professor of English.
- Victor Ernest Graham, B.A., M.A., Ph.D., from Assistant to Associate Professor of French.
- Eric John Hanson, B.A., M.A., Ph.D., from Assistant to Associate Professor of Economics.
- Kenneth Bateman Newbound, B.Sc., M.Sc., Ph.D., from Assistant to Associate Professor of Physics.
- Eunice Robertson, B.Ed., Lecturer in English.
- Thomas Moore Wilson, M.Sc., Sessional Lecturer in Physics.
- John Thomas Jones, M.A., Chairman of the Department of English.
- Andrew Thomson Elder, B.A., M.A., from Lecturer to Assistant Professor of English.

Denis Rowley Godfrey, B.A., Ph.D., from Lecturer to Assistant Professor of English.  
 Arthur Bligh Crighton, Mus. Bac., from Lecturer to Assistant Professor of Music.  
 George Samuel, M.A., from Lecturer to Assistant Professor of French.  
 Gordon Fraser Sleight, M.A., B.Litt., Lecturer in English.  
 Earl Frederick Guy, M.A., Lecturer in English.  
 Terence Michael Penelhum, M.A., B.Phil., Lecturer in Philosophy.  
 Grant Robert Davy, B.A., M.A., from Lecturer to Assistant Professor of Political Economy.  
 William Clare Wonders, B.A., M.A., Ph.D., Assistant Professor of Geography.  
 George Ferno MacDowell, B.A., Sessional Lecturer in Political Economy.  
 John Garner, M.A., Sessional Lecturer in Political Economy.  
 Gordon Peacock, B.Ed., M.F.A., Lecturer in Drama.  
 H. Grant Sampson, B.A., A.Mus., Extension Lecturer in Music.  
 Adelle Roginsky, B.S., Ph.D., Sessional Instructor in Chemistry.  
 William Neil McKay, B.Sc., Sessional Instructor in Chemistry.  
 Monique Chainet, Licence es Lettres, Reader in French.  
 Allan Robert Godfrey, Sessional Instructor in English.  
 John Ralph Nursall, M.S., Ph.D., Lecturer in Zoology.  
 Harry Schiff, M.Sc., Ph.D., Lecturer in Physics.  
 Peter Michael Dranchuk, B.Sc., Lecturer in Petroleum Engineering.  
 Edgar Williams, Sessional Instructor in Music.  
 Heinz Helfenstein, M.Sc., Ph.D., Sessional Instructor in Mathematics.  
 Marguerite Primeau, M.A., Sessional Instructor in French.  
 Edward Joseph Hollingworth Greene, M.A., Docteur de l'Université de Paris, Head of the Department of Modern Languages.  
 Ernest Sydney Keeping, B.Sc., A.R.C.S., D.I.C., Head of the Department of Mathematics.  
 James Edward Moore, B.A., M.A., Ph.D., from Assistant to Associate Professor of Zoology.  
 Robert Karl Brown, M.Sc., Ph.D., from Assistant to Associate Professor of Chemistry.  
 Walter Edgar Harris, M.Sc., Ph.D., from Assistant to Associate Professor of Chemistry.  
 Manoel Faucher, L. en Droit, M.A., from Assistant to Associate Professor of French.  
 Willard Finlay Allen, B.Sc., M.A., Ph.D., from Assistant to Associate Professor of Chemistry.  
 Charles Richard Stelck, B.Sc., M.Sc., Ph.D., from Assistant to Associate Professor of Geology.  
 Frank Donald Blackley, M.A., Ph.D., from Assistant to Associate Professor of History.  
 Lorene Louise Kennedy, B.Sc., M.Sc., from Lecturer to Assistant Professor of Botany.  
 Orest Starchuk, D.Jur. et. Rer. Pol., from Lecturer to Assistant Professor of Russian.  
 Robert George Baldwin, B.A., M.A., from Lecturer to Assistant Professor of English.  
 Esther Nelson, from Lecturer to Assistant Professor of Drama.

Conrad Percival Gravenor, B.A., M.S., Ph.D., from Lecturer to Assistant Professor of Geology.

Ernest Reinhold, B.Sc., M.A., from Lecturer to Assistant Professor of German.

#### *School of Household Economics*

Grace Leslie Duggan, B.Sc., B.Ed., M.S., from Assistant to Associate Professor of Household Economics.

#### *Faculty of Dentistry*

Robert Stacey Van Alstine, D.D.S., M.S., Assistant Professor of Oral Surgery.  
William Orobko, B.Sc., D.D.S., from Assistant to Associate Professor of Dentistry.

George Archibald Brass, D.D.S., B.S.D., from Assistant to Associate Professor of Dentistry.

Robert Henry Blaquiere, D.D.S., from Lecturer to Assistant Professor of Operative Dentistry.

Alan Douglas Fee, D.D.S., from Lecturer to Assistant Professor of Prosthetic Dentistry.

#### *Faculty of Education*

John William Gilles, M.A., M.Ed., Ed.D., from Associate Professor to Professor of Education.

Robert Ellsworth Rees, B.A., B.Ed., Ph.D., from Assistant to Associate Professor of Education.

Stanley Charles Tremayne Clarke, M.A., M.Ed., Ed.D., from Assistant to Associate Professor of Education.

Earl William Buxton, B.A., B.Ed., from Assistant to Associate Professor of Education.

Gertrude Cornelia Higgin, B.A., L.R.S.M., from Assistant to Associate Professor of Education.

Harold Clarence Melsness, B.Sc., from Assistant to Associate Professor of Education.

John Douglas Aikenhead, B.Sc., M.A., from Assistant to Associate Professor of Education.

Dorothy Lampard, B.A., M.A., from Lecturer to Assistant Professor of Education.

Cyril G. Hampson, B.A., from Lecturer to Assistant Professor of Education.

John Allison Forbes, M.Ed., from Lecturer to Assistant Professor of Education.

Muriel Adeline Caldwell, B.Ed., from Lecturer to Assistant Professor of Education.

Howard Byron Barnett, A.R.C.T., B.A., Mus.Bac., from Lecturer to Assistant Professor of Education.

Jean Keeley, Sessional Instructor in Education.

Margaret O. Cogswell, B.A., R.N., Assistant Professor of Education.

#### *Faculty of Engineering*

George Ford, M.Sc., Ph.D., from Assistant to Associate Professor of Applied Mechanics.

Ralph Norman McManus, M.Sc., Ph.D., from Assistant to Associate Professor of Civil Engineering.



Thomas Patching, B.Sc., from Assistant to Associate Professor of Mining and Metallurgy.

Jack Longworth, B.Sc., M.Sc., from Lecturer to Assistant Professor of Applied Mechanics.

Allan W. Peterson, B.Sc., Instructor in Civil Engineering.

Walter Morley Balke, B.Sc., Sessional Lecturer in Electrical Engineering.

W. J. Beard, B.Sc., Sessional Instructor in Mining Engineering.

D. H. Pollock, B.Sc., Sessional Instructor in Civil Engineering.

Victor Marcus Appelt, B.Sc., Sessional Instructor in Civil Engineering.

Thomas Blench, B.Sc., M.I.C.E., from Associate Professor to Professor of Civil Engineering.

Ronald Edward Phillips, B.Sc., from Assistant to Associate Professor of Electrical Engineering.

Donald Baker Robinson, B.Sc., M.S., Ph.D., from Assistant to Associate Professor of Chemical Engineering.

#### *Faculty of Law*

George William Reed, B.A., LL.B., from Assistant to Associate Professor of Law.

J. H. Laycraft, B.A., LL.B., Sessional Instructor in Commercial Law.

Francis Russell Dunn, B.A., LL.B., Sessional Instructor in Law.

Cameron Steer, B.A., LL.B., Sessional Instructor in Law.

#### *Faculty of Medicine*

Guy Kent Morton, M.D., from Lecturer to Assistant Clinical Professor of Neurosurgery.

William Alexander Shandro, M.D., C.M., F.R.C.S.(C), from Instructor to Lecturer in Clinical Surgery.

Thomas Sidney Wilson, B.Sc., M.D., F.R.C.S.(C), from Lecturer to Assistant Clinical Professor of Surgery.

Allan G. Stewart, M.A., Ph.D., Assistant Professor of Biochemistry.

Kathleen Swallow, B.Sc., M.D., Sessional Instructor in Paediatrics.

Charles Russell Amies, M.B., B.S., M.D., M.R.C.S., Associate Professor of Bacteriology.

Robert Alexander Macbeth, B.A., M.D., M.Sc., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

James Francis Elliott, B.A., M.D., F.R.C.P.(C), F.A.C.P., from Assistant Clinical Professor to Clinical Professor of Medicine.

Paul Louis Rentiers, B.A., M.D., M.Sc., from Instructor to Lecturer in Dermatology.

Hector Ewart Duggan, M.D., from Instructor to Lecturer in Radiology.

Patrick Hamilton Malcolmson, B.A., M.D., from Instructor to Lecturer in Radiology.

Sheila Lipsett, B.Sc., Instructor in Bacteriology.

Robert Stewart Fraser, B.Sc., M.D., M.Sc., Lecturer in Medicine.

Mary Eileen Spencer, B.A., M.A., Ph.D., Sessional Instructor in Biochemistry.

Robert Edward Bell, m.i.d., M.D., Sessional Instructor in Clinical Biochemistry.

Mitro Michael Sereda, M.D., Sessional Instructor in Clinical Medicine.

Donald Forbes Cameron, M.B.E., m.i.d., B.A., M.D., Sessional Instructor in Anaesthesiology.

Harvey Leslie Hogge, B.Sc., Sessional Instructor in Hygiene.  
 Charles Frederick Hyndman, M.D., C.M., Sessional Instructor in Radiology.  
 Stanley Greenhill, M.D., D.P.H., Sessional Instructor in Medicine.  
 Jack Dean Taylor, M.Sc., Sessional Instructor in Biochemistry.  
 John Hopkyns, M.A., A.M., B.Ch., M.R.C.P., Sessional Instructor in Medicine.  
 Douglas Burrows Leitch, M.C., B.A., M.B., F.R.C.P.(C), Professor of Paediatrics.  
 Walter Raymond Salt, M.Sc., from Assistant to Associate Professor of Anatomy.

#### *School of Commerce*

Francis George Winspear, F.C.A., LL.D., Director of the School of Commerce and Professor of Business Administration.

#### *School of Pharmacy*

Arthur James Anderson, B.Sc., M.S., from Lecturer to Assistant Professor of Pharmacy.  
 Donald Ross Innes, B.Sc., Sessional Instructor in Pharmacy.  
 Donald Clifford Hobbs, B.Sc., Sessional Instructor in Pharmacy.  
 John Randolph Murray, M.Sc., from Assistant to Associate Professor of Pharmacy.  
 Bernard Edward Riedel, M.Sc., Ph.D., from Assistant to Associate Professor of Pharmacy.

#### *School of Nursing*

Isabelle MacLean Reesor, B.Sc., M.A., R.N., from Lecturer to Assistant Professor of Nursing.

#### *Department of Physical Education*

William Donald Smith, B.P.H.E., M.A., from Assistant to Associate Professor of Physical Education.  
 Margaret Visser, B.Ed., Instructor in Health and Physical Education.  
 Luther Goodwin, B.A., B.Ed., M.Ed., from Assistant to Associate Professor of Physical Education.  
 Evangeline Alberta Hastie, B.A., from Assistant to Associate Professor of Health and Physical Education.

#### *Other Appointments*

Aylmer Arthur Ryan, M.A., Provost.  
 Harold Richard Hawes, B.A., Assistant to the Registrar.  
 Charles Emerson Noble, B.A., B.Sc., Provincial Analyst.  
 Lois J. Carrier, B.A., B.L.S., Library Assistant.

#### **Table III—Leave of Absence**

Henry Kreisel, M.A., Ph.D., Assistant Professor of English.  
 Thomas Frank Wise, M.A., Lecturer in Political Economy.  
 Ernest Reinhold, B.Sc., M.A., Lecturer in German.  
 Henry Bertram Mayo, M.A., D.Phil., Professor of Political Science.  
 Frank James Hastie, B.Sc., Associate Professor of Electrical and Mechanical Engineering.  
 Robert Henslow Graham Orchard, M.A., Assistant Professor of Drama.

#### Table IV—Retirements

James A. Kelso, M.Sc., Provincial Analyst and Director of the Industrial Laboratory.

#### Table V—Resignations

James Douglas McLean, D.D.S., Associate Professor of Prosthetic Dentistry.

John Edgar Dutton, B.A., B.L.S., Library Assistant.

Andrew Royden Thompson, LL.B., Assistant Professor of Law.

Dorothy R. Colquhoun, B.A., R.N., Instructor in Nursing Education.

Stewart Clare, B.A., M.S., Ph.D., Assistant Professor of Zoology.

Rae Chittick, R.N., B.Sc., M.A., Associate Professor of Education.

Martin Louis Adamson, B.Ed., Supervisor of Visual Instruction.

Dennis McNeice Healy, M.B.E., B.A., Docteur de l'Université de Paris, Professor of French.

Joan Dafoe, B.A., B.L.S., Library Assistant.

Lloyd Muir Smith, B.Sc., M.Sc., Assistant Professor of Dairying.

#### Table VI—Gifts

From the National Research Council, \$61,827.82 in accountable advances for research under the direction of the following staff members: T. Blench, \$4,000; R. K. Brown, \$900; H. Grayson-Smith, \$600; J. L. Morrison, \$625; R. C. Harrison, \$359.10; A. B. McCarten, \$2,000; R. F. Shaner, \$2,900; J. Tuba, \$4,650; T. J. Speakman, \$1,100; D. R. Wilson, \$375; E. O. Lilge, \$13,820.37; C. F. Bentley, \$600; J. P. Bowland, \$2,120; D. R. Clandinin, \$1,000; W. G. Corns, \$2,562.33; E. H. Gowan, \$1,050; W. E. Harris, \$1,200; A. W. Henry, \$2,350; R. J. Hilton, \$1,432.27; H. R. MacLean, \$1,140; A. G. McCalla, \$2,635; J. D. Newton, \$2,400; A. R. Robb-lee, \$1,055; W. Rowan, \$900; L. M. Smith, \$1,400; J. A. Toogood, \$1,180; J. Unrau, \$4,295; O. J. Walker, \$1,045; S. Zalik, \$1,800.

From the Defence Research Board, grants for work under the direction of the following staff members: B. Hocking, \$200; W. C. Stewart, \$1,400; E. O. Hohn, \$1,500; H. B. Collier, \$2,000; J. H. Harrold, \$500; F. W. Wood, \$1,150.

From the Line Elevator Farm Service, \$750 for Winter Wheat research.

From the Alberta Division, Canadian Cancer Society, \$23,950.

From the National Cancer Institute of Canada, grants for research under the direction of the following: R. K. Brown, \$1,464.53; H. E. Rawlinson, \$600; R. B. Sandin, \$2,925; J. S. Thompson, \$789.44; J. Tuba, \$3,194; A. G. Stewart, \$1,500.

From the Edmonton Bird Club, \$396.25 to the Frank Farley Bird Book Fund.

From the Alberta Tuberculosis Association, \$50 for books.

From G. D. Searle & Co., \$300 for research under Dr. W. D. Mackenzie.

From the Alberta Seed Growers' Co-operative Ltd., \$1,000 for study and research on soil inoculant.

From Mr. and Mrs. John Stanley McKay, \$1,000 to be used for surgical research in heart diseases under the direction of Dr. W. C. Whiteside.

From the Alberta Drama League to the Studio Theatre, \$75.

From the Federal Department of Agriculture, a grant of \$300 to R. J. Hilton for co-operative vegetable trials.

From Dr. C. R. Stelck, a set of Russian geological memoirs for the Library.

From the Senior Class of 1953, \$110 for a display case in the Library.

From Mr. George Encil, as a memorial to his mother, a Steinway concert grand for the Banff School of Fine Arts.

From Rule, Wynn & Rule, \$3,500 to the Banff School of Fine Arts.



From the Brown Boveri Co., a voltage regulator.  
 From Mr. Claude Gallinger, two steers.  
 From the Edmonton Civic Employees' Welfare Chest Fund, \$5,000 for research in the John S. McEachern Cancer Research Laboratory.  
 From the Upjohn Company, \$3,000 for research in the Department of Plant Science.  
 From the Federal Department of Agriculture, \$2,015 for research under Dr. W. G. Corns.  
 From the Dominion Engineering Company, a model Francis water turbine runner.  
 From the British Insulated Callender's Cables Ltd., three KVA power factor corrector condensers.  
 From the Interprovincial Pipe Line Company, \$300 for equipment.  
 From the St. John's Ukrainian Orthodox Church, \$25 for Ukrainian books.  
 From the Foothills Local of the Alberta Teachers' Association, \$15 for research in the Faculty of Education.  
 From Canadian Cancer Society, Alberta Division, \$1,000 for research under R. B. Sandin.  
 From United Grain Growers, \$500 for oil seed research in the Department of Plant Science.  
 From Friends of the University, \$1,425 from fifty persons.

#### Table VII—New Scholarships and Prizes

To the Banff School of Fine Arts Scholarship Fund from Canadian Association of Broadcasters, \$200; Eric L. Harvie, \$100; G. Encil, \$200; J. R. Gilley, \$5; Mrs. Bruchna, \$40; George Noble, \$50; Calgary Broadcasting Company, \$100; Kiwanis Music Festival Committee, Guelph, \$100.

From an anonymous donor, \$1,670 to establish a trust fund for a prize in honor of Miss Florence Dodd.

From the Creamery Industry Supply Ltd., a prize of \$25 to the gold medalist in the Diploma Course in Dairying.

From the Dairy Supplies Ltd., a prize of a watch to the student of the Diploma Course in Dairying standing highest in practical work.

From the Alberta Oil Tool Co. Ltd., \$300 for deserving students who need financial aid.

From an anonymous donor, \$100 for a needy student.

From Miss Clare M. McKinlay, \$35 for the James McNish Chalmers Prize in Mathematics.

From Dr. H. Baden Powell, \$50 to the Postgraduate Scholarship Fund in Dentistry.

From the Lieutenant Governor of Alberta, two gold medals for award to graduating students in the general B.A. and B.Sc. courses who have shown the highest distinction in scholarship.

#### Table VIII—Staff Publications

##### *Department of Anatomy*

Harris, R. H. D. Commercial fisheries in the Great Slave Lake. Publication 7 of the Fisheries Research Board of Canada.

Salt, W. R. The structure of the cloacal protuberance of the vesper sparrow and certain other passerine birds. *The Auk*, 71:64-73.

### *Department of Animal Science*

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Bowstead, J. E. Care and Feeding of Dairy Cattle. *Univ. Alta. Bull.* 41 (Second Revision). 1953.

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Renner, Ruth, Clandinin, D. R., Morrison, A. B., and Robblee, A. R. The effects of processing temperatures on the amino acid content of sunflower seed oil meal. *J. Nutrition* 50:487-490. 1953.

Robblee, A. R., and Clandinin, D. R. The use of calcium pantothenate and biotin in practical poult starters. *Poultry Sci.* 32:579-582. 1953.

Staff. Thirty-third Annual Feeders' Day Report. *Univ. Alta. Press Bulletin.* June, 1954.

### *Department of Bacteriology*

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### *Department of Biochemistry*

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#### *Department of Botany*

Cormack, R. G. H., and Anne L. Gorham. Effect of exposure to sunlight upon the development of leaf structure of two deciduous shrub species. *Can. J. Bot.* 31:537-541. 1953.

Kennedy, Loren L. Alberta pollen survey. *J. Allergy* 24:355-363. 1953.

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#### *Department of Classics*

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#### *Department of Clinical Medicine*

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#### *Department of Chemistry*

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the Reactions with Thallous Ethylate in Ether, Nitration Mixtures and Heavy Water of Cotton Linters Alternatively Wetted with Water and Dried. *Can. Journal of Chemistry*. 31:550-563. 1953.

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#### *Department of Dairying*

Hansen, S. A., Wood, F. W., and Thornton, H. R. Some mechanical features of a plate-type HTST pasteurizer. Phosphatase inactivation in HTST pasteurization of milk. Creaming impairment in HTST pasteurization of milk. *Can. J. Technology* 31:231-239, 240-249, 250-259. 1953.

#### *Department of Education*

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#### *Faculty of Engineering*

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### *Department of English*

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### *Department of Entomology*

Hocking, B. Notes on the activities of *Aedes* larvae. *Mosquito News*, 13: 77-81. Illus. 1953.

Hocking, B., and Pickering, L. R. Observations on the bionomics of some northern species of Simuliidae. *Can. J. Zool.* 32:99-119.

Moore, J. E., and Strickland, E. H. Notes on the food of three species of Alberta amphibians. *Amer. Midland Naturalist*, 4-5 pages. In press.

Strickland, E. H. An annotated list of the hemiptera of Alberta. *Can. Ent.*, 85:193-214. 1953.

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Strickland, E. H. A key for the identification of the genus *Tenthredo* on the Canadian prairies. *Can. Ent.* In press.

### *Department of Geology*

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### *Department of History*

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### *Faculty of Law*

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#### *Department of Mathematics*

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#### *Department of Modern Languages*

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Table IX—Student Registration

	CIVILIAN					REHABILITATION					TOTALS				
	Male		Female		Total	Male		Female		Total	Male		Female		Total
	52-53	53-54	52-53	53-54	52-53 53-54	52-53	53-54	52-53	53-54	52-53 53-54	52-53	53-54	52-53	53-54	52-53 53-54
<b>TOTAL REGISTRATION</b>															
Full Session, Summer Session, Evening Division and Short Courses.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	94	124	100	120	194	244	2	3	5	...	3001	3221	2807	2860	5808 6081
<b>1. Arts and Science</b>															
Edmonton	295	303	72	71	367	374	6	5	1	...	96	127	100	120	196 247
B.A.	5	...	...	...	5	...	...	...	...	...	301	308	73	71	374 379
B.Sc.	1	...	...	...	1	...	...	...	...	...	5	...	...	...	5 ...
B.A., B.Com.	48	53	2	2	50	55	2	2	...	...	1	...	...	...	1 ...
B.A., B.Sc.Eng.	19	16	...	2	19	16	2	2	...	...	50	55	2	2	52 57
B.A., LL.B.	...	...	...	...	...	...	...	...	...	...	21	18	...	...	21 18
Pre-dental	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...
Diploma in Art.	462	498	174	195	636	693	12	12	1	...	474	510	175	195	649 705
Partials, regular	14	5	9	5	23	10	5	3	...	...	19	8	9	6	28 14
Partials, Evening Division	6	4	7	9	13	13	4	4	1	2	10	8	8	11	18 19
<b>Calgary</b>															
B.A.	8	10	3	4	11	14	...	...	...	...	8	10	3	4	11 14
B.Sc.	16	17	11	5	27	22	...	...	...	...	16	17	11	5	27 22
B.A., LL.B.	2	5	...	1	2	6	1	...	...	...	3	5	...	1	3 6
B.A., B.Sc.Eng.	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1 ...
Pre-dental	4	1	...	...	4	1	...	...	...	...	4	1	...	...	4 1
Partials, regular	31	33	14	10	45	43	1	...	...	...	32	33	14	10	46 43
Partials, Evening Division	7	...	4	5	11	5	...	1	...	...	7	1	4	5	11 6
	493	531	188	205	681	736	13	12	1	14	506	543	189	205	695 748
<b>2. Agriculture</b>															
Partials	85	83	1	4	86	87	4	4	...	...	89	87	1	4	90 91
	1	1	...	...	1	1	1	...	...	...	2	1	...	...	2 1
<b>3. Commerce</b>															
Edmonton	92	91	16	14	108	105	1	2	...	...	93	93	16	14	109 107
Partials	1	2	...	...	1	2	2	2	...	...	3	4	...	...	3 4
Evening Division	2	1	...	...	2	1	...	2	...	...	2	3	...	...	2 3
<b>Calgary</b>															
Commerce	...	11	...	...	...	11	...	...	...	...	...	11	...	...	...
Evening Division	...	2	...	...	...	2	...	4	...	...	...	6	...	...	...
Commerce, full time	...	102	...	14	...	116	...	2	...	...	...	104	...	14	...

4. Dentistry.....	98	104	3	2	101	106	22	12	...	...	22	12	120	116	3	2	123	118
<b>5. Education</b>																		
Edmonton	119	140	243	274	362	414	9	9	...	1	9	10	128	149	243	275	371	424
B.Ed., four-year.....	2	1	...	...	2	1	1	1	...	...	...	1	2	2	...	...	2	2
B.Ed. in Ind. Arts.....	4	10	11	5	15	15	2	4	...	1	...	5	6	14	11	6	17	20
B.Ed. after B.A., B.Sc., etc.....	24	22	23	19	47	41	2	...	...	...	2	...	26	22	23	19	49	41
B.Ed. in Phys. Ed.....	30	31	148	150	178	181	...	...	...	...	...	...	30	31	148	150	178	181
Temporary License.....																		
Edmonton, full time.....	179	204	425	448	604	652	13	14	...	2	13	16	192	218	425	450	617	668
Partials, regular.....	14	24	30	39	44	63	5	4	1	...	6	4	17	28	31	39	48	67
Partials, Evening Division.....	13	15	39	31	52	46	4	...	1	2	5	2	17	15	40	33	57	48
<b>Calgary</b>																		
B.Ed., four-year.....	23	26	70	65	93	91	...	...	...	...	...	...	23	26	70	65	93	91
B.Ed. in Ind. Arts.....	20	18	...	1	20	19	1	...	...	...	1	...	21	18	...	1	21	19
B.Ed. after B.A., B.Sc., etc.....	...	1	1	3	1	4	1	...	...	...	1	...	1	1	1	3	2	4
Temporary License.....	12	22	82	69	94	91	1	1	...	...	1	1	13	23	82	69	95	92
Calgary, full time.....	55	67	153	138	208	205	3	1	...	...	3	1	58	68	153	138	211	206
Partials, regular.....	13	15	25	40	38	55	4	6	...	...	4	6	17	21	25	40	42	61
Specials.....	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	...	1	...
Partials, Evening Division.....	...	3	...	5	...	8	...	...	...	...	...	...	...	3	...	5	...	8
<b>Lethbridge</b>																		
Partials, Evening Division.....	...	3	...	31	...	34	...	3	...	1	...	4	...	6	...	32	...	38
Education, full time.....	234	271	578	586	812	857	16	15	...	2	16	17	250	286	578	588	828	874
<b>6. Engineering</b>																		
Civil.....	140	160	...	...	140	160	7	6	...	...	7	6	147	166	...	...	147	166
Chemical.....	77	119	...	1	77	120	...	1	...	...	...	1	77	120	...	1	77	121
Electrical.....	59	91	...	...	59	91	5	3	...	...	5	3	64	94	...	...	64	94
Mining.....	23	27	...	...	23	27	1	...	...	...	1	...	24	27	...	...	24	27
Petroleum.....	72	56	...	...	72	56	3	2	...	...	3	2	75	58	...	...	75	58
Irrigation.....	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	1
Engineering Physics.....	2	2	...	...	2	2	...	...	...	...	...	...	2	2	...	...	2	2
Engineering Geology.....	2	3	...	...	2	3	...	...	...	...	...	...	...	3	...	...	2	3
Not specified.....	98	126	...	...	98	126	1	...	...	...	1	...	99	126	...	...	99	126
Full time.....	473	585	...	1	473	586	17	12	...	...	17	12	490	597	...	1	490	598
Partials.....	2	2	...	...	2	2	1	2	...	...	1	2	3	4	...	...	3	4
<b>7. Household Economics</b>																		
B.Sc., H.Ec.....	...	...	67	67	67	67	...	...	...	...	...	...	...	...	67	67	67	67
B.H.Ec.....	...	...	3	3	3	3	...	...	...	...	...	...	...	...	3	3	3	3
Partials.....	...	...	70	70	70	70	...	...	...	...	...	...	...	...	70	70	70	70
	...	...	1	1	...	1	...	...	...	...	...	...	...	...	1	1	...	1

Table IX—Student Registration—Continued

	CIVILIAN					REHABILITATION					TOTALS				
	Male		Female		Total	Male		Female		Total	Male		Female		Total
	52-53	53-54	52-53	53-54	52-53 53-54	52-53	53-54	52-53	53-54	52-53 53-54	52-53	53-54	52-53	53-54	52-53 53-54
8. Law.....	76	85	5	5	81 90	15	9	.....	.....	15 9	91	94	5	5	96 99
9. Medicine.....	183	208	15	13	198 221	27	10	3	.....	30 10	210	218	18	13	228 231
B.Sc.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	1
Partials.....	183	208	15	13	198 221	27	11	3	.....	30 11	210	219	18	13	228 232
	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	1
10. Nursing, Edmonton.....	.....	.....	103	100	103 100	.....	.....	.....	.....	.....	.....	.....	103	100	103 100
B.Sc.....	.....	.....	194	214	194 214	.....	.....	.....	.....	.....	.....	.....	194	214	194 214
Diploma.....	.....	.....	7	9	7 9	.....	.....	.....	.....	.....	.....	.....	7	9	7 9
Dip. in Public Health.....	.....	.....	9	12	9 12	.....	1	.....	.....	.....	.....	.....	9	13	9 13
Dip. in Teach and Sup.....	.....	.....	313	335	313 335	.....	.....	.....	1	.....	.....	.....	313	336	313 336
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11. Pharmacy.....	80	91	17	25	97 116	3	1	.....	.....	3 1	83	92	17	25	100 117
B.Sc.....	2	3	.....	.....	2 3	2	1	.....	.....	2 1	4	4	.....	.....	4 4
Partials.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12. Graduate Studies.....	18	16	4	6	22 22	15	13	1	1	16 14	33	29	5	7	38 36
M.A.....	20	23	3	2	23 25	3	1	.....	.....	3 1	23	24	3	2	26 26
M.Sc. (Arts).....	8	7	.....	8	7 8	9	3	.....	.....	9 3	17	10	.....	.....	17 10
M.Sc. (Agric.).....	10	9	.....	10	9 10	2	4	.....	.....	2 4	12	13	.....	.....	12 13
M.Sc. (Engin.).....	.....	2	.....	.....	2	.....	.....	.....	.....	.....	.....	2	.....	.....	2
M.Sc. (Pharm.).....	2	4	1	2	3 6	3	1	.....	.....	3 1	5	5	1	2	6 7
M.Sc. (Med.).....	12	9	5	10	17 19	10	7	.....	.....	10 7	22	16	5	10	27 26
M.Ed.....	5	9	.....	5	9 11	3	2	.....	.....	3 2	8	11	.....	.....	8 11
Ph.D.....	12	11	.....	12	11 12	5	3	.....	.....	5 3	17	14	.....	.....	17 14
B.D.....	23	25	12	3	35 28	9	8	.....	.....	9 8	32	33	12	3	44 36
Special Grad.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	110	115	25	23	135 138	59	42	1	1	60 43	169	157	26	24	195 181
	8	4	.....	1	8 5	5	1	.....	.....	5 1	13	5	.....	1	13 6
	.....	1	.....	.....	1	1	.....	.....	.....	.....	1	1	.....	.....	1 1
Evening Division, M.Ed.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Special Grad.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total full-time students.....	1932	2175	1231	1283	3163 3458	183	120	5	4	188 124	2115	2295	1236	1287	3351 3582
13. Auditors.....	2	1	2	1	4 2	1	.....	.....	.....	1	3	1	2	1	5 2
Regular.....	7	6	8	6	15 12	1	5	.....	.....	1	8	11	8	6	16 17
Evening Division.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....



<b>14. Partials, regular.....</b>		54	53	68	90	122	143	24	19	1	1	25	20	74	72	69	91	143	163
Evening Div., Edmonton.....		21	25	46	41	67	66	4	7	2	4	6	11	29	32	48	45	77	77
Evening Div., Calgary.....		...	5	...	5	...	10	...	4	...	...	...	4	...	9	...	5	...	14
Evening Div., Lethbridge.....		...	3	...	31	...	34	...	3	...	1	...	4	...	6	...	32	...	38
<b>15. Specials, regular.....</b>		6	13	2	3	8	16	5	4	...	...	5	4	11	17	2	3	13	20
Evening Div., Edmonton.....		1	...	1	1	2	1	...	1	...	...	1	1	1	1	2	1	3	2
Specials, Calgary.....		...	2	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	2
Evening Div., Calgary.....		...	1	...	2	...	3	...	...	...	...	...	...	...	1	...	2	...	3
Evening Div., Lethbridge.....		...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1
<b>2023</b>		<b>2284</b>	<b>1358</b>	<b>1464</b>	<b>3381</b>	<b>3748</b>	<b>218</b>	<b>163</b>	<b>9</b>	<b>10</b>	<b>227</b>	<b>173</b>	<b>2241</b>	<b>2447</b>	<b>1367</b>	<b>1474</b>	<b>3608</b>	<b>3921</b>	
<b>II. Summer Session</b>																			
Edmonton.....		542	609	983	963	1525	1572	134	46	9	4	143	50	676	655	991	967	1667	1622
Banff School—		...	...	...	...	...	...	...	...	...	...	...	...	4	6	25	29	29	35
University credit.....		...	...	...	...	...	...	...	...	...	...	...	...	80	93	419	390	499	483
Non-University credit.....		...	...	...	...	...	...	...	...	...	...	...	...	760	754	1435	1386	2195	2140
<b>III. Short Courses</b>																			
Diploma in Dairying.....		...	13	...	...	...	13	...	...	...	...	...	...	...	13	...	...	...	13
Adv. Practical Obstetrics.....		...	...	...	5	5	6	...	...	...	1	...	1	...	7	5	...	5	7
<b>Grand Totals.....</b>		<b>2906</b>	<b>2433</b>	<b>5339</b>	<b>209</b>	<b>15</b>	<b>224</b>	<b>3001</b>	<b>3221</b>	<b>2807</b>	<b>2860</b>	<b>5808</b>	<b>6081</b>						

Table X—Distribution of Students According to Estimated Year of Graduation

1954 .....	1041
1955 .....	755
1956 .....	1093
1957 .....	609
1958 .....	75
1959 .....	2
1960 .....	1
Not specified .....	345
	<hr/>
	3921
	<hr/>

Table XI—Distribution of Students According to Year of Birth, Sex, and Status as Rehabilitation or Civilian

AGE	CIVILIAN			REHABILITATION			GRAND TOTAL
	Male	Female	Total	Male	Female	Total	
15 .....		1	1				1
16 .....	7	9	16				16
17 .....	78	107	185				185
18 .....	276	313	589				589
19 .....	333	305	638	1		1	639
20 .....	307	221	528				528
21 .....	319	147	466				466
22 .....	285	90	375				375
23 .....	205	46	251				251
24 .....	145	24	169				169
25 .....	99	15	114				114
26 .....	53	21	74	6		6	80
27 .....	31	7	38	19		19	57
28 .....	23	14	37	19		19	56
29 .....	16	5	21	21		21	42
30 .....	14	9	23	19	1	20	43
31 .....	4	5	9	14	2	16	25
32 .....	10	5	15	8	1	9	24
33 .....	9	6	15	14	1	15	30
34 .....	7	8	15	4	2	6	21
35 .....	8	14	22	5	1	6	28
36 .....	4	6	10	7		7	17
37 .....	7	7	14	4		4	18
38 .....		10	10	4		4	14
39 .....	4	5	9	2		2	11
40 .....	2	5	7	3		3	10
41 .....	3	10	13				13
42 .....	6	6	12	3	1	4	16
43 .....	2	4	6	2		2	8
44 .....	6	6	12	1		1	13
45 .....	3	8	11				11
46 .....	4	6	10	1		1	11
47 .....	2	2	4		1	1	5
48 .....	1	3	4	1		1	5
49 .....	1	3	4				4
50 .....	3	2	5				5
51 .....	2	3	5				5
53 .....	2	2	4	2		2	6
54 .....	1		1	2		2	3
55 .....	1		1				1
57 .....	1		1	1		1	2
58 .....		1	1				1
61 .....		1	1				1
63 .....		1	1				1
71 .....		1	1				1
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	2284	1464	3748	163	10	173	3921

Table XII—Distribution of Students According to Previous Attendance at the University

	CIVILIANS			VETERANS		
	Male	Female	Total	Male	Female	Total
Attended previous Winter Session.....	1364	644	2008	73	3	76
Attended previous Summer Session.....	77	113	190	16	3	19
Last attendance prior to 1952-53.....	133	123	256	46	1	47
Not previously in attendance.....	710	584	1294	28	3	31
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	2284	1464	3748	163	10	173

Table XIII—Distribution of Full-Time Students According to School or Faculty and Year of Course

School or Faculty	1st Year		2nd Year		3rd Year		4th Year		5th Year		Totals	
	52-53	53-54	52-53	53-54	52-53	53-54	52-53	53-54	52-53	53-54	52-53	53-54
Arts and Science .....	302	341	216	223	155	166	20	18	...	...	694	748
Agriculture .....	27	29	20	23	19	20	24	19	...	...	90	91
Commerce .....	48	52	30	35	32	30	...	1	...	...	110	118
Dentistry .....	30	30	30	27	28	28	35	33	...	...	123	118
Education .....	434	440	209	246	82	86	84*	98†	...	...	828	874
Engineering .....	210	245	101	167	99	93	80	93	...	...	490	598
Household Economics .....	30	29	19	25	21	16	...	...	...	...	70	70
Law .....	33	43	30	30	33	26	...	...	...	...	96	99
Medicine .....	59	55	52	54	64	58	53	64‡	...	...	228	232
Nursing .....	117	113	80	86	62	79	20	21	34	37	313	336
Pharmacy .....	46	45	29	44	25	28	...	...	...	...	100	117
	1336	1422	816	960	620	630	316	347	34	37	3142	3401
						ADD:						
							School of Graduate Studies				192	174
							Auditors				21	19
							Specials				15	28
							Partials				221	285
							B.D.				17	14
											3608	3921

\*Plus 4 unclassified.

†Plus 19 unclassified.

‡Plus 1 unclassified.



Table XIV—Distribution of Student Veterans According to Faculty or School and Year of Course

	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	5th Yr.	Totals
<b>Arts and Science</b>						
B.A. ....			2	1		3
B.Sc. ....	1	3	1			5
B.A., LL.B. ....		2				2
Pre-dental ....	2					2
Partials ....						11
Agriculture ....	2	1	1			4
Commerce ....	1	1				2
Partials ....						8
Dentistry ....	3	1	2	6		12
<b>Education</b>						
B.Ed., four-year course ....	2	6		2		10
B.Ed. in Industrial Arts ....				1		1
B.Ed. after B.A., etc. ....			1	4		5
Temporary License ....	1					1
Partials ....						16
<b>Engineering</b>						
Civil ....		1	2	3		6
Chemical ....				1		1
Electrical ....		1		2		3
Petroleum ....			1	1		2
Partials ....						2
<b>Law</b> ....	2	5	2			9
<b>Medicine</b>						
M.D. ....	2	1		7		10
B.Sc. ....						1
<b>Nursing</b>						
Diploma in Teaching and Supervision ....					1	1
<b>Pharmacy</b> ....		1				1
Partials ....						1
<b>Graduate Studies</b>						
M.A. ....						14
M.Sc. (in Arts) ....						1
M.Sc. (in Agriculture) ....						3
M.Sc. (in Engineering) ....						4
M.Ed. ....						8
M.Sc. (in Medicine) ....						1
Ph.D. ....						2
Special Graduates ....						8
B.D. ....						3
<b>Auditors</b> ....						5
<b>Special</b> ....						5
<b>TOTALS</b> ....	16	23	12	28	1	173

Table XV—Registration of Students According to Religious Denomination

Anglican .....	464
Baptist .....	139
Christian Science .....	10
Church of Christ .....	3
Church of Nazarene .....	2
Greek Catholic .....	67
Greek Orthodox .....	171
Hebrew .....	86
Latter Day Saints .....	98
Lutheran .....	207
Presbyterian .....	137
Protestant (church not specified) .....	55
Roman Catholic .....	648
Russian Orthodox .....	3
Seventh Day Adventist .....	2
Ukrainian Orthodox .....	24
United Church .....	1609
Others .....	196
	3921

**Table XVI—Distribution of Students According to Birthplace of Father**

<b>A. <i>British Empire-Commonwealth</i></b>		
(a) Canada (not otherwise specified)	89	
Alberta: Edmonton	55	
Calgary	39	
Lethbridge	14	
Medicine Hat	7	
Red Deer	10	
Vegreville	6	
Wetaskiwin	13	
Camrose	1	
Cardston	15	
Others	208	
	<hr/>	368
Newfoundland		3
Nova Scotia		91
Prince Edward Island		31
New Brunswick		43
Quebec		91
Ontario		536
Manitoba		154
Saskatchewan		90
British Columbia		31
Yukon and North West Territories		1
	<hr/>	1528
(b) <i>Other Parts of the British Empire-Commonwealth</i>		
British Isles	707	
Dominions	7	
Crown Colonies	5	
	<hr/>	719
		<hr/>
		2247
<b>B. <i>Countries Outside the British Empire-Commonwealth</i></b>		
United States of America	506	
Poland and Czechoslovakia	209	
Russia and Ukraine	271	
Balkan States (Yugoslavia, Roumania, Bulgaria, Albania, Greece, Turkey)	43	
Scandinavian States (Sweden, Norway, Denmark; Iceland)	141	
Germany, Austria	161	
France	12	
Hungary	30	
China and Japan	64	
Others	95	
	<hr/>	1532
<b>C. <i>Information not specified</i></b>		142
<b>TOTAL</b>		<hr/>
		3921
		<hr/>

**Table XVII—Distribution According to Home Address of FIRST-Year Students  
Not Previously in Attendance**

HOME ADDRESS	ATTENDING EDMONTON	
Edmonton .....	310	
Red Deer .....	17	
Vegreville .....	8	
Wetaskiwin .....	7	
Camrose .....	8	
Others (on or north of Township 38) .....	357	
	<hr/>	
Edmonton and <i>north</i> of Township 38 .....		707
	<hr/>	
Calgary .....	56	
Lethbridge .....	25	
Medicine Hat .....	10	
Cardston .....	12	
Others .....	138	
	<hr/>	
<i>South</i> of Township 38 .....		241
	<hr/>	
<i>Other Provinces, etc.</i>		
Nova Scotia .....	1	
Prince Edward Island .....	1	
Quebec .....	3	
Ontario .....	3	
Manitoba .....	3	
Saskatchewan .....	39	
British Columbia .....	11	
Yukon and North West Territories .....	2	
	<hr/>	63
	<hr/>	
<i>Countries Outside the British Empire-Commonwealth</i>		
United States of America .....	2	
Not specified .....	2	
	<hr/>	4
	<hr/>	
	ATTENDING CALGARY	
Edmonton .....	1	
Red Deer .....	1	
	<hr/>	
Others (on or north of Township 38) .....	8	
	<hr/>	
Edmonton and <i>north</i> of Township 38 .....		10
	<hr/>	
Calgary .....	64	
Lethbridge .....	6	
Medicine Hat .....	2	
Cardston .....	1	
Others ( <i>south</i> of Township 38) .....	86	
	<hr/>	159
	<hr/>	
<i>Other Provinces</i>		
Saskatchewan .....	5	
British Columbia .....	2	
	<hr/>	7
	<hr/>	



Table XVIII—Distribution of Students According to Home Address and Birthplace

A. *British Empire-Commonwealth*

(a) Canada (not otherwise specified) .....	1	5		
Alberta: Edmonton .....	1294	621		
Red Deer .....	50	39		
Vegreville .....	22	57		
Wetaskiwin .....	19	34		
Camrose .....	27	47		
Others (on or north of Twp. 38) .....	897	1231		
Calgary .....	528	390		
Lethbridge .....	109	127		
Medicine Hat .....	40	71		
Cardston .....	25	43		
Others (south of Township 38) .....	596	249		
		3608		2914
Newfoundland .....	2	13		
Nova Scotia .....	2	5		
Prince Edward Island .....		4		
New Brunswick .....	7	21		
Quebec .....	12	67		
Ontario .....	22	102		
Manitoba .....	173	440		
Saskatchewan .....	60	99		
British Columbia .....	7	2		
Yukon and North West Territories .....			3893	3667
(b) Other Parts of the British Empire-Commonwealth				
British Isles .....	2	64		
Dominions .....		2		
Crown Colonies .....	3	3		
		5		69

B. *Countries Outside the British Empire-Commonwealth*

United States of America .....	9	44		
Poland and Czechoslovakia .....		40		
Russia and Ukraine .....		22		
Balkan States (Yugoslavia, Roumania, Bulgaria, Albania, Greece, Turkey) .....		9		
Scandinavian States (Sweden, Norway, Denmark, Iceland) .....	1	9		
Germany, Austria .....	2	11		
France .....		1		
Hungary .....		5		
China and Japan .....		4		
Others .....	5	32		
Not specified .....	6	8		
		23		185
		3921		3921

**Table XIX—Distribution of Students According to Father's Occupation**

Occupational Classification and Occupation		Number	Totals
A.	<i>Professional</i>		
	Accountants, auditors .....	49	
	Dentists .....	18	
	Doctors .....	63	
	Lawyers .....	55	
	Ministers .....	51	
	Pharmacists, druggists .....	27	
	Professors, teachers .....	124	
	Engineers and land surveyors .....	56	
	Others .....	20	
		<hr/>	463
B.	<i>Business and Finance</i>		
	Garage, service station managers .....	56	
	Grain, oil, implement agents, livestock dealers .....	89	
	Hotelkeepers, restaurateurs and employees .....	60	
	Insurance, real estate, bond salesmen, stock-brokers .....	58	
	Retail merchants, grocers, shopkeepers, clerks .....	229	
	Bank employees .....	26	
	Wholesale managers, clerks, warehousemen .....	45	
	Salesmen, commercial travellers, manufacturers' agents .....	59	
	Advertising .....	5	
	Others .....	162	
		<hr/>	789
C.	<i>Industry</i>		
	Assayers, industrial chemists .....	3	
	Bakers, brewers .....	14	
	Dairy and creamery owners and employees .....	18	
	Farmers, ranchers, dairy farmers, poultry farmers and market gardeners .....	962	
	Contractors, builders .....	59	
	Lumbermen, building supplies, etc. ....	31	
	Manufacturers, factory foremen, employees, etc. ....	43	
	Mine owners, managers and employees .....	97	
	Transportation owners, managers and employees .....	155	
	Others .....	54	
		<hr/>	1436
D.	<i>Artisans and Skilled Tradesmen</i>		
	Barbers, hairdressers .....	14	
	Carpenters, masons, bricklayers, plasterers, floor finishers .....	85	
	Electricians, radio repair, etc. ....	12	
	Mechanics, locksmiths, gunsmiths, etc. ....	31	
	Metal workers, welders, tinsmiths, blacksmiths .....	19	
	Machinists, lathe operators .....	9	
	Painters and decorators .....	12	
	Plumbers, gas and steam-fitters .....	14	
	Tailors, pressers, cleaners and dyers, shoemakers .....	12	
	Others .....	64	
		<hr/>	272
E.	<i>Government Service</i>		
	Civic or municipal employees .....	43	
	Provincial government employees .....	78	
	Dominion government employees .....	73	
	Armed services .....	6	
	Members of Provincial and Dominion Parliament .....	3	
	Judges and magistrates .....	9	
		<hr/>	212
F.	<i>Retired</i> .....	296	
	<i>Deceased</i> .....	413	
	<i>Not specified</i> .....	40	
		<hr/>	749
	<b>TOTAL</b> .....		<hr/> <b>3921</b> <hr/>

Table XX—Distribution of Students According to Pattern, Honors or Branch

Arts and Science Pattern—B.A.	1st Year		2nd Year		3rd Year		4th Year		Partials		Total
	52-53	53-54	52-53	53-54	52-53	53-54	52-53	53-54	52-53	53-54	
	15	17	14	11	13	13	...	...	...	...	
English .....	5	2	3	2	4	4	...	...	...	...	41
Musical .....	5	...	...	...	...	...	...	...	...	...	8
Fine Arts .....	5	5	3	...	2	...	...	...	...	...	4
Foreign Language or Literature .....	9	16	...	...	2	...	...	...	...	...	10
History .....	22	42	26	13	3	9	...	...	...	...	7
Philosophy or Psychology .....	10	13	11	15	18	23	...	...	...	...	38
Political Economy .....	2	2	1	17	4	15	...	...	...	...	80
Art .....	2	3	...	...	...	...	...	...	...	...	25
Political Science .....	...	...	...	1	...	...	...	...	...	...	45
No pattern .....	44	41	16	...	1	...	...	...	...	...	3
Pattern—B.Sc.	...	...	...	...	...	...	...	...	...	...	5
Chemistry .....	2	5	3	22	16	13	...	...	...	...	...
Mathematics .....	4	9	4	5	4	3	...	...	...	...	76
Physics .....	40	31	20	36	17	27	...	...	...	...	13
Geology .....	1	1	4	1	2	2	...	...	...	...	18
Entomology .....	1	...	...	...	...	...	...	...	...	...	77
Botany .....	31	24	39	37	23	17	...	...	...	...	94
Zoology .....	27	20	8	16	19	7	...	...	...	...	6
Special B.Sc. course .....	1	8	...	...	1	2	...	...	...	...	4
Experimental Psychology .....	3	1	...	2	...	...	...	...	...	...	2
No pattern .....	...	...	...	...	...	...	...	...	...	...	93
Honors	...	...	...	...	...	...	...	...	...	...	54
Biochemistry .....	5	9	1	2	8	1	...	...	...	...	11
Chemistry .....	...	...	...	7	...	...	...	...	...	...	3
Classics .....	...	...	...	...	...	...	...	...	...	...	8
Conservation Biology .....	...	...	...	...	...	...	...	...	...	...	28
English .....	3	5	6	2	...	...	...	...	...	...	4
Geology .....	...	...	...	1	2	...	...	...	...	...	2
History .....	...	...	...	3	...	...	...	...	...	...	1
Mathematics .....	4	2	2	1	2	...	...	...	...	...	14
Modern Languages .....	2	2	3	4	2	2	...	...	...	...	5
Psychology .....	5	1	1	2	1	3	...	...	...	...	3
Physics .....	...	...	...	3	2	2	...	...	...	...	8
Business Administration .....	...	...	...	4	3	2	...	...	...	...	6
Political Economy .....	...	...	...	...	...	...	...	...	...	...	3
Engineering	...	...	...	...	...	...	...	...	...	...	10
Civil .....	28	31	46	...	...	...	...	...	...	...	1
Chemical .....	34	39	11	58	43	40	...	...	...	...	1
Electrical .....	18	29	19	31	21	12	...	...	...	...	37
Mining .....	3	4	7	48	17	16	...	...	...	...	22
Petroleum .....	27	14	18	14	6	8	...	...	...	...	18
Irrigation .....	...	...	...	16	12	3	...	...	...	...	3
Engineering Physics .....	...	...	...	...	1	1	...	...	...	...	12
Engineering Geology .....	1	2	...	...	...	2	...	...	...	...	1
Not specified .....	99	126	...	...	...	...	...	...	...	...	2
	245	167	...	...	...	...	...	...	...	...	99
	245	167	...	...	...	...	...	...	...	...	93
	245	167	...	...	...	...	...	...	...	...	491
	245	167	...	...	...	...	...	...	...	...	600

\*Indicates intention only. All first-year students in Engineering are registered in general course.



Table XXI—Students Attending Calgary Branch

	CIVILIAN						REHABILITATION						TOTALS					
	Male			Female			Male			Female			Male			Female		
	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total
<b>Arts and Science</b>	8	10	14	3	4	11	...	...	...	...	...	...	8	10	3	4	11	14
B.A. ....	16	17	22	11	5	27	...	...	...	...	...	...	16	17	11	5	27	22
B.Sc. ....	2	5	6	...	1	2	1	...	1	...	...	...	3	5	...	1	3	6
B.A., LL.B. ....	1	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	1	...
B.A., B.Sc. Engin. ....	4	1	1	...	...	4	...	...	...	...	...	...	4	1	...	...	4	1
Pre-Dent. ....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals</b> ....	31	33	43	14	10	45	1	1	1	...	...	...	32	33	14	10	46	43
<b>Partials</b> ....	7	...	5	4	5	11	...	1	...	...	...	...	7	1	4	5	11	6
<b>Commerce, B.Com.</b> ....	...	11	11	...	...	...	...	...	...	...	...	...	...	11	...	...	...	11
<b>Education</b>	23	26	91	70	65	93	...	...	...	...	...	...	23	26	70	65	93	91
B.Ed., four-year ....	20	18	19	...	1	20	1	...	1	...	...	...	21	18	...	1	21	19
B.Ed. in Industrial Arts ....	...	1	4	1	3	1	1	...	1	...	...	...	1	1	...	3	2	4
B.Ed. after B.A., B.Sc., etc. ....	12	22	91	82	69	94	1	1	1	...	...	...	13	23	82	69	95	92
Temporary License ....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Partials</b> ....	55	82	205	153	138	208	3	1	3	1	6	4	58	68	153	138	211	206
...	13	15	55	25	40	38	4	6	...	...	...	...	17	21	25	40	42	61
<b>Special Students</b> ....	...	2	2	...	...	...	1	...	1	...	...	...	1	2	...	...	1	2
<b>TOTALS</b> ....	106	128	321	196	193	302	9	8	8	...	...	9	115	136	196	193	311	329

Table XXII—Students Attending Evening Divisions

	CIVILIAN						REHABILITATION						TOTALS					
	Male			Female			Male			Female			Male			Female		
	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total
<b>EDMONTON</b>																		
Arts and Science																		
B.A.	3	3	12	9	6	3	2	4	1	1	1	5	7	10	12	7	17	
B.Sc.	3	...	3	3	...	1	1	...	...	1	...	1	...	1	4	...	1	1
B.A., LL.B.	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
B.A. after B.Ed.	—	—	...	1	...	...	—	...	...	...	...	...	...	...	2	...	...	...
Commerce	6	4	13	9	7	4	4	4	1	2	5	6	8	11	18	...	...	...
Education, B.Ed., four-year	2	1	1	...	...	...	2	2	1	...	...	2	3	...	2	...	3	3
Graduate Studies	13	15	46	52	39	4	4	...	1	...	5	2	15	40	57	33	48	48
M.Ed.	8	4	5	8	...	...	5	1	...	...	5	1	13	...	13	1	6	6
Special Grad.	...	1	1	...	...	...	1	...	...	...	1	...	1	...	1	...	1	1
Auditors	8	5	6	8	...	...	6	1	...	...	6	1	...	...	...	...	...	...
Specials	7	2	6	15	8	1	1	4	...	...	1	4	8	...	14	1	7	7
...	1	...	1	2	1	...	1	1	1	...	1	1	1	...	16	4	10	10
TOTALS	37	27	73	92	55	...	15	12	3	4	18	16	39	58	110	50	79	79
(NOTE: These figures do not include 10 students in 1952-53 and 16 students in 1953-54 also registered as regular students.)																		
<b>CALGARY</b>																		
Commerce, B.Com.	...	2	2	...	...	...	...	4	...	...	...	4	...	...	...	...	6	6
Education, B.Ed., four-year	...	3	8	...	...	...	...	...	...	...	...	...	3	...	...	5	8	8
Auditors	...	4	5	...	...	...	...	1	...	...	...	1	...	...	...	1	6	6
Specials	...	1	3	...	...	...	...	...	...	...	...	...	1	...	...	2	3	3
...	—	10	18	...	...	...	...	5	...	...	...	5	...	...	...	...	...	...
LETHBRIDGE																		
Education, B.Ed., four-year	...	3	34	...	...	...	...	3	...	1	...	4	6	...	...	32	38	38
Auditors	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
Specials	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
TOTALS	...	3	36	...	...	...	...	3	...	1	...	4	...	...	...	34	40	40

## Report of Dean A. G. McCalla of the Faculty of Agriculture

The outstanding events of the current year are concerned with improved accommodation and the awarding of two advanced degrees.

The Agriculture Building will be near completion by the end of June and members of the staffs of the Departments of Animal Science, Plant Science, and Soils are looking forward to the new facilities that will be available for research and for classes in the fall. Adequate greenhouse space has now been assured and construction should start this summer. The Department of Dairying has much improved quarters in the South Laboratory.

At Fall Convocation, 1953, the first Ph.D. given by this University was awarded to Clayton Person, who carried out his work in the field of cytogenetics in the Department of Plant Science. Dr. Person did his earlier work at the University of Saskatchewan. This spring he was awarded a National Research Council Postdoctorate Overseas Fellowship and will do advanced work in Sweden. At Convocation in May, 1954, E. H. Strickland, who has been Professor of Entomology since 1922, will receive the D.Sc. degree. This is only the fourth such degree given by this University. Professor Strickland retires this summer.

Dr. C. F. Bentley of the Department of Soils returned in October after spending a year in Ceylon under the auspices of the Colombo Plan. Dr. L. P. V. Johnson returned from Syria in early January, where he was engaged for a year on work with the F.A.O.

The number of graduates remained the same as last year, but first-year registration was up. Employment opportunities still far exceed the number of graduating students.

### *Academic*

Registration included 92 full-time and one partial undergraduates, 11 candidates for the M.Sc., seven for the Ph.D., and four special graduates. Among the graduate students are three from Great Britain, one from Holland, one from Switzerland, and one from Slovakia. Thirteen took their undergraduate work at other institutions.

There are only 19 in the graduating class, the smallest number since the late war years. Not only are there too few for the employment opportunities but some research programs are seriously handicapped for lack of good student assistants.

A successful Diploma Course, with a registration of 15, was given in the Department of Dairying.

### *Research*

While research facilities will be greatly improved in the new building and with the expansion now being provided for the Department of Dairying and to be provided for Agricultural Engineering, the past year has seen a large amount of good research work carried on. As usual, financial assistance has been received from a large number of outside sources to supplement that provided by the University directly. The donors include many commercial and industrial firms and are far too numerous to list individually, but the major roles played by the National Research Council of Canada and the Canada Department of Agriculture must be specially acknowledged.



The Department of Agricultural Engineering has conducted tests on the uniformity of application of chemical sprays using a variety of equipment.

The Department of Animal Science has continued work on many of the projects mentioned in earlier reports. This year the Department took part in two co-operative projects sponsored by the Associate Committee on Animal Nutrition of the National Research Council of Canada. These projects, one with hogs and one with chicks, are designed to test the adequacy of the nutrient requirements for swine and poultry as set out in the 1953 revision of "Nutrient Allowances" published by the National Research Council, U.S.A.

While emphasis in the animal husbandry field is still necessarily on work with swine, some increase in research involving sheep and cattle has been possible. This includes studies on silage stored in pits and fed as the main roughage to fattening steers. Considerable time has been spent on methods of chemical analyses to be used in appraising the feeding value of such roughages.

Research in poultry husbandry has again emphasized nutrition, including studies with broilers and laying hens, and with young turkeys and breeding turkey hens. Studies have also included work on strains of chickens for producing broilers, radiant heating for brooding chicks, and a new method of inducing moult in laying hens.

The Department of Dairying developed an experimental continuous butter-making apparatus with a capacity of about 30 pounds per hour. So far as is known, this is the only machine of its kind, and it should be valuable in a wide variety of studies. Work on seasonal variation in butterfat color, and on the content of the major fatty acids of butter, was continued throughout the year. The studies on canned butter progressed to the pilot stage proposed by the industry.

The Department of Entomology carried on research on insect flight, on nutrition of the pale western cutworm, and on the development of louseproof clothing. Professor Strickland co-operated with the Department of Zoology by identifying some 3,630 insects constituting part of the food of Alberta amphibians.

Research in Plant Science covers many fields and only a few projects can be mentioned. Many of the projects receive generous support from outside sources.

A number of hormonal chemical growth regulators have been demonstrated to have effects on increasing the frost resistance of some plants at various stages of growth. Other projects with chemical sprays include studies of various herbicides and effects on yield and quality of root crops.

Research on oil-seed crops has been expanded both in the field and in the laboratory. The crops used include flax, rapeseed, and sunflowers.

Work on the use of antibiotics in control of plant diseases has been expanded to include studies of the effects on wheat stem rust. Compatibility studies with antibiotics and other chemicals have been continued with the objective of developing seed treatments that are non-toxic to man.

A new native-fruit testing station was established last summer in the Provincial Park at Crimson Lake, near Rocky Mountain House. It is planned to carry out selection and breeding work with native fruits such as blueberries and cranberries. The co-operative fruit-breeding project has now reached the

stage where some fruiting can be expected in 1954. An increasing number of flowers and shrubby ornamentals are under trial.

Genetic and cytogenetic studies using wheat and barley have been expanded and promise to yield valuable results. A stock of new breeding material is being developed and fundamental information is being obtained. Perhaps special mention should be made of the production of triploid barley plants on a scale not previously recorded.

The Department of Soils continued with the projects reviewed last year and expanded the work on hard-pan soils at Youngstown. The soil erosion plots at St. Albert continue to yield valuable results. The damage caused by the very severe storms in July last year was greater than previously recorded. At the peak of the worst storm, a record seven-tenths of an inch of rain was recorded in seven minutes. The number of intensity rain gauges in the province has been increased and over a period of years will yield valuable data. Studies with fertilizers and soil micro-organisms have been continued. A procedure for mechanical analysis of soil has been developed and will be recommended for general use.

#### *Extension*

Faculty members took part in many meetings, field days, and short courses. Radio addresses, personal interviews, and extension correspondence all continue to take considerable time.

The thirty-second Annual Feeders' Day again drew a large crowd. Field days were held at Breton and Youngstown by the Department of Soils and were well attended. The latter, in particular, was an important event because it brought together those who are interested in the proposed Reed Deer irrigation project and those who are concerned with the potential value of the soil under irrigation. The Annual Visitors' Day in the Department of Plant Science was cancelled since it came on the weekend of record rainfall. Staff members assisted at various schools for seed growers and at seed fairs.

In conclusion, it should be recorded that members of the staff of the faculty gave many hours of time to the working out of details in connection with the Agriculture Building.

### **Report of Dean Walter H. Johns of the Faculty of Arts and Science**

I have the honour to present a report dealing with the Faculty of Arts and Science for the session 1953-54.

*Registration, 1953-54 (exclusive of the Schools of Commerce and Household Economics)*

The registration in the Faculty of Arts and Science was 748 as compared with 717 in the session 1952-53. In this total are included: B.A. 261; B.Sc. 401; B.A., LL.B. 63; Pre-Dent. 19; B.A., B.Sc.(Eng.) 2; Diploma in Art 2. Partials and Specials accounted for another 20 students, and there were 19 in the Evening Division, making a total of 787 full-time and part-time students in all.

## Degrees

The following degrees were conferred during the year:

	October, 1953	May, 1954	Total
B.A. ....	12	64	76
B.Sc. ....	11	105	116
B.Com. ....	.....	31	31
B.Sc. in H.Ec. ....	3	15	18
B.H.Ec. ....	1	.....	1
	<hr/> 27	<hr/> 215	<hr/> 242
	<hr/>	<hr/>	<hr/>

## Progress During the Session

(a) *Standing Committee on Patterns*—The Faculty Council, in the November meeting, 1953, authorized the establishment of a standing committee on patterns for the purpose of carrying on a periodic study of the content of B.A. and B.Sc. patterns and bringing forward recommendations annually to the Council. This committee was set up in November, 1953, comprising six members under the chairmanship of Professor Douglas Smith.

(b) *Changes in Patterns and Honors Programs*—A number of changes in patterns and honors programs secured the approval of the Faculty throughout the year. Many of these were made necessary by the reduction in the Mathematics of Grade XII of the High School, but others, such as those in the fields of Modern Languages, Philosophy, and Psychology, were due to the continuing effort to improve the programs available to students.

A special committee of the Faculty brought forward a revised statement of the programs open to students and a revision of the statement on honors programs with a view to making the information clearer and more helpful. These revisions were approved by the Council of the Faculty and will appear in the University Calendar for the 1954-55 session.

(c) *New Courses*—A number of new courses were approved in the Departments of Political Economy, Modern Languages, Mathematics, Physics, and History. These included a new course in Intermediate Economic Analysis (Economics 60), French Prose and Poetry of the Late Nineteenth Century (French 61), a graduate course in Number Theory (Mathematics 110), two graduate courses in Physics—one on Theories of the Solid State (Physics 106) and the other on Advanced Thermodynamics and Statistical Mechanics (Physics 107), an undergraduate course in Astrophysics (Physics 58) dealing with stellar spectra and their interpretation, and finally a course on Revolutionary and Napoleonic France (History 106e). These courses provide evidence of the new interests and talents brought to the University by new members of the staff and of the efforts of the staff to provide instruction in new areas of study in the light of changing conditions.

(d) *Intermediate Diploma in Art*—In order to provide recognition of the successful completion of two years' study toward the Diploma in Art, approval was secured for the awarding of an Intermediate Diploma at that stage. This will permit students to proceed elsewhere at the end of two years if they wish to do so and yet possess a document certifying to the work done at this institution.

(e) *Leave of Absence and Sabbatical Leave*—Dr. H. B. Mayo of the Department of Political Economy was given leave of absence in order to serve as



Visiting Professor of Political Science at McGill University for the 1953-54 session. Mr. R. G. H. Orchard, Assistant Professor of Drama, held a fellowship in Europe during the session and has utilized it to study production in France, Italy and other European countries. Mr. Henry Kreisel of the Department of English continued his work towards the Doctoral Degree at the University of London, and Mr. Thomas Wise of the Department of Political Economy was granted leave to carry on graduate study in Economics at McGill. Mr. Martin C. Martin of the Department of Physics, Calgary Branch, obtained leave in order to come to Edmonton to study for the Ph.D. under Professor Grayson-Smith. Dr. Walter H. Johns, Dean of the Faculty, was granted leave of absence in February in order to carry out a tour of universities on the Pacific Coast. The cost of the tour was covered by a grant from the Carnegie Corporation of New York.

(f) *Resignations and New Appointments*—The Faculty lost two valued staff members in the resignation of Dr. D. M. Healy of the Department of Modern Languages and Dr. Robert T. Sharp of the Department of Physics.

Miss Marguerite Primeau was appointed as Sessional Lecturer to replace Dr. Healy, and Dr. Harry Schiff was named Lecturer to replace Dr. Sharp. In the Department of Political Economy, Mr. John Garner and Mr. George F. MacDowell replaced Dr. Mayo and Mr. Wise for the current session. Another addition to the department came in the appointment of Dr. William C. Wonders as Assistant Professor of Geography to begin the work of this new field here. One of our own graduates, Dr. Thomas Moore Wilson, replaced Mr. Martin as Sessional Lecturer in Physics, Calgary Branch. Two other sessional appointments were later confirmed as continuing members of the staff. These were Dr. Ralph Nursall of the Department of Zoology and Dr. Heinz Helfenstein of the Department of Mathematics.

Dr. K. B. Newbound, Associate Professor of Physics, was appointed Assistant to the Dean for one year from April 1, 1954, and Dr. D. B. Scott assumed the duties of Physicist at the Cancer Clinic on a part-time basis in addition to his work in the University's Department of Physics. Dr. Earl Frederick Guy was added to the Department of English (Calgary Branch), and Mr. Gordon Fraser Sleigh to its Edmonton division. Mr. Terence M. Penelhum was appointed Lecturer in Philosophy and Mr. H. Grant Simpson Extension Lecturer in Music.

### *Departmental Reports*

#### *Botany*

All members of the Department continued their research programs throughout the year. Dr. E. H. Moss served in an advisory capacity with members of the Dominion Forest Service on a comprehensive study of Rocky Mountain pine forests. Dr. R. G. H. Cormack was Visiting Lecturer in Botany in the summer session of the University of British Columbia.

#### *Chemistry*

Registration in the Department of Chemistry continues to rise, increasing from 1,340 in 1952-53 to 1,445 in the current session. The number enrolled in honors and graduate study here is still not large, but there are at present a total of twenty-eight students from the University of Alberta carrying on graduate study elsewhere at a total of fourteen institutions in Canada and the United States. Members of the Department continue to carry on research and

to participate in the activities of professional societies. Dr. Sandin is studying cancer chemotherapy and cancer mechanism; Dr. Morrison is working chiefly on colloidal and surface chemistry, and Dr. Davis on the electrode potentials of dental alloys; Dr. Brown's studies in the field of organic chemistry include the reactivity of cellulose, the synthesis of indole derivatives, and a study of heterocyclic sulfur. Dr. Harris has three separate projects, including research on trace elements in rubber and the corrosion of iron by natural gas. Dr. Allen of the Calgary Branch is working on methods of determining small amounts of cobalt, and Dr. Walker, in spite of his heavy administrative load, is still actively supervising research on the ashing of organic materials containing fluorides.

### *Classics*

Dr. W. G. Hardy continued his broadcasts over the CBC by another series of four talks during February and March on Greek Thought, while three radio plays written by him were carried on the network. Dr. May took part in two broadcasts over the University radio station, while Dr. Hardy and Dr. Johns each gave one talk on classical themes. Miss Mackenzie completed the requirements for the M.A. at Stanford University and was awarded the degree in June, 1953. Two graduates in Honors Classics have held scholarships in the American School of Archeology in Athens and have been carrying out studies throughout the Greek islands and the mainland in the past year.

### *English*

Professor F. M. Salter brought honor to the University and to himself by delivering the Alexander Lectures in the University of Toronto in March of this year. His subject was *Mediaeval Drama in Chester*. He also had the distinction of acting as Chairman of Section 2 of the Royal Society of Canada. Three members of the Department, Professors Ryan, Elder, and Baldwin, carried on research on these for the degree of Ph.D. Mr. Ryan accepted an appointment as Provost of the University, while other members of the Department assisted in organizing short courses in English writing to be given under the auspices of the Department of Extension and in acting as judges in the novel-writing competition sponsored by the Imperial Order of the Daughters of the Empire. A. T. J. Cairns, a graduate student in the Department, won the I.O.D.E. Overseas Scholarship and plans to go to England in the fall to carry on his studies.

### *Fine Arts*

Throughout the year the Department made excellent progress in organizing and expanding its activities, both intramural and extramural. The Diploma Course in Art was in its first year and fully justified its establishment by the increased interest it aroused and the standards it introduced. Enrolment in the University comprised 278 students in Painting, some for credit and some not. In the extension classes held in other centres throughout the province a total of over 300 students took part.

The Department assisted in a number of exhibitions in the Rutherford Gallery, the Arts Building, and the Studio Theatre, including sixteen shows by local artists, eight by community art groups, and four from the National Gallery. Dr. Hedley prepared reports of all these exhibitions for publication in *The Edmonton Journal*. In addition the Department sponsored, or assisted in sponsoring, a number of lectures and recitals by Ross Pratt, pianist; Robert



McFerrin, baritone; Eric Newton, art critic; Stella Mary Pearce, authority on stage design; Basil Spence, architect, and Professor Joseph Smith, elocutionist. The Division of Painting organized a series of twenty-four talks and panel discussions over the radio on "Art in Everyday Life".

The Music Division had another good year in the regular music courses, the extramural student activities, and extension work. The instrumental laboratories under Professor Crighton and Mr. Edgar Williams brought increasing interest and improvement in this part of teaching. Extension courses in Music Appreciation were held in Edmonton and Lethbridge, a course in choral leadership was held in Tofield, and a course in Ear Training and Sight Singing in Edmonton.

The Drama Division had its most active year to date with a greatly increased participation by University students. A total of ninety-five roles were filled by students in various plays, and six one-act plays were directed by students in the Drama Division. The Studio Theatre produced a total of five plays, of which one, "The Braggart Warrior", was double cast from the drama classes in acting and broke all attendance records at the theatre. Assistance was given to other drama groups in the city and a series of broadcasts on the work of the Studio Theatre was carried on the University radio station.

Professor Glyde, head of the Department of Fine Arts, was elected National President of the Canadian Federation of Artists and also represented Alberta on the Canadian Arts Council.

### Geology

Members of the Department of Geology have carried on programs of active research in a wide variety of fields over the past year. Dr. Warren and Dr. Stelck have concentrated on studies in stratigraphy, Dr. Simpson on mapping areal geology in South Central B.C., Dr. Folinsbee in structural research in the outer foothills belt, and Dr. Gravenor in his studies of the geology of Ontario. The great interest in geology in Alberta has brought increasing numbers of students to the Department, and there are more applications for graduate study than can be accommodated. Last fall a field trip was held, and plans for repeating this type of instruction are being considered.

### History

The Department, in addition to nine courses offered in the regular session, gave instruction in History 58 (Canadian History) and History 10 (European History) in the Evening Division. Professor Collins has completed a manuscript on *The Protestant Revolt of the Sixteenth Century* and the article on *Feudalism* for the new edition of the *Encyclopedia Americana*. Dr. Blackley has given a large number of lectures on a variety of topics to the United Nations School at Banff, to Extension groups at the University, the R.C.A.F. Squadron at the University, and the Army Current Affairs School, in addition to two talks on CKUA. Mr. Thomas has carried on his research in the early history of Alberta and the Canadian West, based on studies carried out in London during his sabbatical leave and on his researches in the province. He will deliver a paper on *English Missionary Records and the History of the Canadian West* at the Winnipeg meeting of the Canadian Historical Association.

### Mathematics

The increase in the work of the Department of Mathematics is shown in part by the fact that it required the services of eleven full-time staff members



as compared with a normal complement of four before the war. Several members of the Department spent the summer of 1953 in research at various points in Eastern Canada. Professors Campbell, Keeping, Wyman, and Fostvedt attended the Canadian Mathematical Congress, and Professors Moser and Crosby the Summer Institute at Kingston, while Dr. Horton carried on studies at the National Research Council in Ottawa. In the Department itself one of the interesting features of the year's activities was the revival of the Mathematics Colloquium at which papers are presented by members of the staff and senior students.

### *Modern Languages*

The French Division of the Department of Modern Languages suffered two serious losses at the beginning of the session in the resignation of Dr. D. M. Healy and a serious accident to Dr. Manoel Faucher which made it impossible for him to return to the University in the session. He is still in France at the beginning of May and making a slow recovery. The teaching problem was met by the appointment of Miss Marguerite Primeau as Sessional Lecturer and the promotion to that rank of Miss Monique Chainet, the Teaching Fellow from France. Dr. E. J. H. Greene was promoted to full Professor and Head of the Department, Mr. Faucher was promoted to Associate Professor, and Dr. Starchuk and Mr. Reinhold to Assistant Professor. The Department's research project had to be abandoned for the year but it is hoped that it can be renewed in the coming year. The honors program was revised during the session, and a new program for Honors in French and English approved. Registration in the Department was up 30% over the previous year, and three students were registered for the M.A.

### *Philosophy and Psychology*

In the past session the Department assumed administrative responsibility for a new course—Sociology 51—given by Professor B. Y. Card of the Faculty of Education. This course represents a valuable nucleus for study in an important field. The demand for testing and counselling has continued to grow and the Department's service in the present session has been almost double that of the previous year. Professor Douglas E. Smith has been appointed to the Medical Advisory Committee of the Alcoholism Foundation of Alberta. He has been elected President of the Council of Community Services of Edmonton and re-elected to the Board of Directors of the John Howard Society of Alberta. Within the University, Dr. Smith has been named Officer Commanding to the Canadian Officers' Training Corps.

### *Physics*

During the past year the Department accepted its first candidate for the degree of Ph.D. in the person of Mr. M. C. Martin of the Calgary Branch teaching staff. He is studying certain properties of metallic crystals under the supervision of Professor Grayson-Smith. The number of candidates for the Master's degree is lower at present, but the number of honors students is again on the increase. The appointment of Dr. D. B. Scott as Physicist to the Provincial Cancer Clinic on a part-time basis will bring about a valuable contact between the Department and the radiologists and provide the necessary physical supervision for deep radiotherapy. Other Department members are continuing research in a variety of fields—Dr. Gowan on the study of ozone,

Dr. Newbound on precision spectroscopy, Dr. Harrold on apparatus for the study of explosive flames, and Dr. Schiff on quantum mechanics.

### *Political Economy*

The members of the Department carried on research in a number of areas of the economy of Alberta and Canada as a whole. Dr. Hanson and Mr. Gainer have almost completed their development of the Alberta economy. Dr. Hanson submitted material on local government and on provincial-municipal relations to the Royal Commission on Agriculture and Rural Life, Province of Saskatchewan, and Mr. Gainer submitted a paper on economic and social change in Western Canada to the same commission. Dr. Mayo carried out a study of civil defence, and Mr. Davy wrote a bulletin on Current Affairs for Grade XII Social Studies for the Department of Education. Mr. Mackenzie participated in a survey of potential agricultural production in Canada.

### *Zoology*

The Department's research continued throughout the year both in the field and in the laboratory. Dr. Rowan continued his study of wildlife cycles, and Dr. R. B. Miller carried out a survey of the sport fishery of parts of B.C. at the request of the B.C. government and supervised the work on the homing behaviour of trout at the Gorge Creek Biological Station. In addition, a permanent camp was maintained at Kehiwin Lake, where studies of tapeworms in fish were carried on. Dr. J. E. Moore, with the aid of Mr. R. Lister, the Departmental technician, continued his study of the fauna of Alberta land vertebrates, adding thirty amphibians, ten reptiles and eighty mammals to the Department's collection. He also carried on a joint study of the taxonomy and distribution of pocket gophers with Dr. R. L. Peterson of the Royal Ontario Museum. All members of the Department took an active part in popular writing and lecturing and attended a number of meetings of popular and professional organizations in the field of zoology.

### **Report of Professor Mabel Patrick, Director of the School of Household Economics**

I beg to submit the following report of the School of Household Economics for the session 1953-54.

Registration in the school this year is slightly higher than last year. The senior class is the smallest for many years and indications are that there will be a greater increase next year.

Registration in classes for nurses and for Education students is 136 and 93 respectively, making a total of 229, as compared with 191 last year.

For the first time, this year the Department of Household Economics is offering an extramural course. Seventeen students are registered in Household Economics 11 at Lethbridge. This class has been taught by Miss Muriel Shortreed.

This year one graduate is doing postgraduate work on a teaching fellowship at Washington State College.

Only seven members of the senior class have accepted student dietitian appointments. Six plan to enter the Faculty of Education.

Renovations are under way in the Department of Household Economics, which will provide additional space and greatly improve the teaching facilities.



Registration in Household Economics classes for Education students for the 1953 Summer Session was larger than usual. There were 108 students, as compared with 84 in 1952. Registration for the 1954 Summer Session indicates that these classes will be still larger.

As usual, members of the Department of Household Economics answered many requests for information, which came by personal calls, by letter and by telephone.

#### **Report of Dean W. Scott Hamilton of the Faculty of Dentistry**

The total enrolment in the Faculty for the session was 118. There are 33 in the graduating class, five of whom are special students who were given partial credit for previous training in Europe.

Dr. R. S. Van Alstine returned from three years' study at the University of Michigan and was appointed to the Faculty in September with the rank of Assistant Professor in Oral Surgery. Dr. D. G. MacGregor was appointed as Director of Clinical Dentistry with the rank of Associate Professor.

Drs. Brass, MacGregor and D. R. Stewart represented the Faculty at the meeting of the American Association of Dental Schools in French Lick, Indiana, in the month of March.

Dr. H. R. MacLean is a member of the Subcommittee on Dental Research of the National Research Council, and of the National Dental Examining Board.

The Faculty is co-operating with the Department of Chemistry in two research projects, "The Electro Potentials of Metals Used in Dentistry" and "The Analysis of Fluorides in Water Supplies".

Members of the Faculty have appeared on programs of various conventions in Canada. Invitations have been received to make presentations in Latin-American countries but had to be declined because of the great expense involved. There is every indication that our staff is receiving greater recognition in this respect.

Negotiations are still incomplete with respect to the establishment of a School for Dental Hygienists.

The final report of the Survey Committee of the Canadian Dental Association was received during the year, and in general it was very favorable. Minor points are receiving attention with a view to improving instruction. The reports on all Canadian schools are to be presented to the Council on Dental Education at Toronto in June, and the Dean of this Faculty has been invited to attend.

#### **Report of Dean H. E. Smith of the Faculty of Education**

Student enrolment rose from 805 in 1945-46 (Edmonton and Calgary) to a peak of 1,270 in 1948-49. The subsequent steady drop to 928 in 1952-53 shows evidence of reversal in the 1,035 registrations for 1953-54. Equally important is the noticeable tendency towards a reduced registration in the one-year (Temporary License) program and an increase in the larger B.Ed. programs.

Of first-rate importance is the organization this year of two committees for the more effective conduct of research work within the Faculty. The Faculty of Education Committee on Research is composed of the Dean, the Chairmen of Divisions, the Director and Assistant Director of Research, and the editor of a proposed publication—The Journal of Educational Research. Associated with this committee is an Advisory Committee on Educational Research, whose



membership is made up of representatives appointed severally by the Department of Education, the Alberta School Trustees' Association, and the Alberta Teachers' Association, the Alberta Federation of Home and School Associations, and the Faculty of Education itself. The functions of this committee are to consult on suitable research projects and to assist in their financing. The Board of Governors of the University has generously provided financial assistance to get the work well launched. A fairly substantial program of research activity is already under way.

Members of the Faculty have participated generously in community affairs, as will appear in the Division reports following. A warm tribute of thanks is due our practice teaching staffs, both urban and rural, for their wholehearted co-operation in student teaching.

### *Elementary Education*

During the year members of the Division of Elementary Education engaged in many professional activities beyond their normal duties. These activities fall into the following categories:

*Guidance*—Each member of the Division is an adviser to a group of about thirty students. In this capacity he has an opportunity to discuss common problems on a plane of understanding which is mutually beneficial.

*Institutes, Workshops and Conventions*—All staff members participated extensively in institutes and conventions held in various parts of the province. There was a total of fourteen such inservice programs. Mr. Card was a delegate to the National Town Planning Association convention in Quebec City. Dr. MacGregor participated at School Trustee conventions at Holden and Fawcett. Miss Lampard presented a paper at the University of Chicago Conference on Reading; attended the National Convention of the Home and School Association in Montreal; and lectured at a two-week workshop for teachers at Yellowknife. Mr. Hodgson was a consultant at the first conference of the C.E.A.-Kellogg course on Educational Leadership. Dr. McDougall participated at the sessions of the C.E.A. Convention at Halifax and at the U.B.C. summer conference on "Conflicting Philosophies of Education".

*Panels and Addresses*—Many requests were received by staff members to participate in discussions provoked by the recent controversy on Canadian education. To Home and School Associations and other interested organizations the staff contributed on twenty-nine occasions. Addresses were delivered by Mrs. Higgin, Miss Caldwell, Mr. Hodgson, Miss Lampard, Miss Miller, and Mr. Card. Dr. McDougall spoke to the Kiwanis Club in Victoria, B.C., and also to the University of Alberta Workshop on administration. Mr. Card addressed the Community Planning Association, the Y.M.C.A. Workshop on Community Planning, and the Education Society, Edmonton.

*Briefs*—Several staff members were involved in the preparation of the brief on "Teacher Shortage" for presentation to the Agricultural Committee of the Legislative Assembly. Mr. Hodgson was a member of the committee which prepared the submission of the Home and School Association on the same topic.

*Research*—Staff members within the limits of the time at their disposal have been engaged in a variety of research projects. Miss Miller and Mr. Hodgson completed a study of the factors related to the success or failure among beginning teachers; Mr. Card prepared a report on "Urban Trends" for the Community Planning Association; Miss Lampard has in progress an investiga-

tion into the causes of spelling difficulties and has completed a survey of the Talmud Torah School for the Hebrew community in the city; Dr. MacGregor is making a study of the salaries of teachers of Agriculture in British Columbia and the border states of the United States.

*Radio*—Under the direction of Mrs. Higgin, the following members of the Division presented a series of eight broadcasts in co-operation with the staff of the University Elementary School: Miss Caldwell, Miss Miller, and Dr. MacGregor. At various times during the year Miss Lampard gave nine broadcasts, and Mr. Card and Dr. MacGregor one each. Dr. McDougall gave one broadcast in Victoria.

*Other Activities*—Miss Caldwell and Mrs. Higgin adjudicated at school festivals; Dr. MacGregor wrote five articles for publication in *Canadian Nature*; Mr. Hodgson collaborated with Dr. Gilles in the editing of three Arithmetic books; Miss Lampard is Canadian Chairman of the National Association for Remedial Teaching; Mr. Card is a member of the National Executive of the Community Planning Association; Mr. Hodgson is a member of the Executive of the Provincial Home and School Association; Dr. McDougall is Chairman of the Edmonton Public Library Board. The activities of the members of the Division are deeply rooted in a broad and influential community.

*Demonstration Schools*—The University Elementary School provides demonstration and experimental facilities for the entire Faculty. The loyal and devoted service of this group of seven teachers is of inestimable value to our teachers-in-training. Associated with the Division in a less intimate fashion are the teachers of forty classrooms in Edmonton and the immediate vicinity. These teachers supervised the teaching of the students for a period of four weeks, distributed through the months of October to March, inclusive. These teachers are rendering excellent service to our teacher education program. In this connection two one-day institutes were held under the direction of Mr. Hodgson and Miss Miller.

### *Secondary Education*

In addition to their teaching duties, the members of the Division of Secondary Education have made contributions in many ways. All members of the Division have participated in the work of various curriculum subcommittees of the Department of Education. Two members served on the High School Curriculum Committee.

Messrs. Baker, Coutts and Melsness spoke at teachers' conventions in Alberta and Saskatchewan. Messrs. Baker, Coutts, Melsness and Sparby assisted the school superintendents with teachers' institutes in seven Alberta centres. Messrs. Coutts, Melsness and Sparby acted as advisers to the C.E.A.-Kellogg Project on School Administration, Mr. Sparby participating on the central planning committee of the project.

Dr. Baker wrote three articles which appeared in the Alberta Teachers' Association Magazine; Mr. Melsness wrote two articles which appeared in the Alberta Teachers' Association Magazine and the Alberta School Trustees' Association Magazine.

Messrs. Baker, Coutts and Melsness taught at the 1953 Summer Session of the University of Alberta.

Mr. Sparby and Mr. Walker have continued their personal research projects on school administration and the history of education in Alberta.



Messrs. Baker and Coutts have been engaged in a research project on language teaching. In addition, members of the Division have been involved in planning the graduate programs of forty students, have served on various University committees and have participated in the radio series sponsored by the University.

### *Educational Psychology*

The academic year just completed has been the most active period since the organization of the Division. This seems to have resulted from wider extension activities in the form of addresses and publications and the increasing demands of graduate students and participation in research. It is encouraging to realize that the six members of the Division have contributed largely to educational leadership throughout the province. It is hoped that the completion of an organization for the sponsoring of educational research will be the most memorable event of the year.

*Practice Teaching*—All members of the Division participated in the supervision of practice teaching. The new procedures in practice teaching seem to encourage weekly visitations of candidates. In our Division we have a fairly general practice of gathering the candidates together toward the end of each week for a discussion of difficulties. The supervision of practice teaching is time-consuming but valuable in directing the attention of all concerned to the central problem of the Faculty, the production of efficient classroom teachers.

*Activities of the Division*—According to our usual practice, the Education Clinic occupied a great deal of the time of members of the Division. Dr. S. C. T. Clarke served as Director in 1953-54. During the year the Clinic dealt intensively with 70 cases referred by the educational authorities of the City of Edmonton and the surrounding divisions. As laboratory practice for the students in Education 574, 324 individual intelligence tests were administered as well as upwards of 600 other tests.

Education 574 was also offered in the Summer Session of 1953 under the direction of Professor Dunlop. Over ninety cases were dealt with during the Summer Session although the majority were referred because of subject-matter difficulties and therefore presented somewhat simpler problems than were encountered in the winter clinic.

During the spring term the Education Clinic demonstrated clinical procedures in a two-day visit to the town of Olds. During this visit the cases were discussed at two well-attended meetings of principals, teachers and guidance officers of the area.

The Education Clinic is an adjunct to the teaching and research activities of the Division. Since clinical work is exacting and time-consuming, it would be unwise to permit it to become a service furnished on request to the educational authorities of Edmonton and district.

The Division assumed responsibility for an exhibit and program during 'Varsity Guest Weekend', which was offered in the Education gymnasium. Professors Rees, Clarke, Walker and Pilkington assumed responsibility for the four units of the exhibit.

Drs. Dunlop and Rees assisted in the first Pilot Short Course for Superintendents sponsored by the Canadian Education Association and the Kellogg Foundation.



Dr. J. G. Woodsworth was guest lecturer in the summer session of 1953 in the Eastern Washington College of Education.

*Addresses*—The Division was called upon to deliver 67 addresses during the year. The number of formal speeches delivered by each member of the staff follows: Dr. Gilles, 9; Dr. Rees, 12; Dr. Clarke, 15; Mr. Pilkington, 14; Dr. Woodsworth, 10; Dr. Dunlop, 7.

Audiences ranged from Provincial Conventions, Home and School Associations, Career Nights, to 4H Club leaders and sororities.

*Publications and Articles*—Dr. Gilles collaborated in the Canadian Revision of Brueckner and Grosnickle's series of texts in Arithmetic. Drs. Clarke and Woodsworth collaborated in a series of three articles on techniques of guidance published in the Alberta School Trustees' Magazine. Dr. Clarke produced three additional articles on interpretation of modern education. Dr. Woodsworth contributed a series of articles to the A.T.A. Magazine and to the Alberta Home and School News. Dr. Rees contributed articles to the Edmonton Public School Journal, the Trustees' Association Magazine, and was author of a widely circulated book list for retarded readers. Dr. Dunlop wrote two articles for Canadian Education and reprints of addresses were published in the A.T.A. Magazine and the Alberta School Trustees' Association Journal.

*Committees*—The six members of the Division held membership in thirty-three committees during the year. Committee membership ranged through major University committees such as School of Graduate Studies, the University Research Committee, committee of the Department of Education, and major committees of the Faculty.

Dr. Dunlop acted as Chairman of the Canadian Teachers' Federation Research Committee and is currently serving on the Canadian Education Association Research Committee.

*Graduate Studies*—Members of the Division were active in the encouragement of twenty-one graduate students who have reached the stage of conducting thesis studies.

*Research*—Members of the Division were active as well in staff-sponsored research projects. Dr. Clarke is working actively in the field of "Teacher Adjustment" and "Teacher Attitudes" and "The Relation of Adjustment to University Achievement". Dr. Rees sponsored a province-wide study of achievement in reading of Grade IV and Grade VII students in urban, town, graded rural and ungraded rural schools. Dr. Dunlop sponsored a companion study in the field of language achievement.

Mr. Pilkington is busily engaged on his Ph.D. research in the field of mastery of Shakespearian English.

Dean Smith and Drs. Rees and Dunlop were active in the promotion of an organization for educational research centred in the University and associated with the Department of Education, the Teachers' Association, the Trustees' Association, and the Alberta Federation of Home and School Associations.

### **Report of Dean R. M. Hardy of the Faculty of Engineering**

The number of students in this Faculty is 621, compared to 504 last year and 460 during the session of 1951-52. The registration totals show a 20% increase from the previous year and a 35% increase from the low point in registration following graduation of the large classes of student veterans.

The demand for engineering graduates from industry and the public services still exceeds the supply. This is still particularly the case in the fields of Mining, Petroleum and Chemical Engineering and in all cases for graduates who have demonstrated somewhat better than average ability. There is some indication this year, however, that the supply is somewhat closer to satisfying the demand in the fields of Civil and Electrical Engineering.

The heavy demand for engineering graduates has created difficulties in attracting graduate students to the engineering departments. However, instruction and research at the graduate level has continued in each of the engineering departments.

The senior member of the staff in the Mining Engineering Department continued as supervisor of research on the Athabasca Oil Sands project of the Research Council of Alberta. The junior professor in this department has continued the investigation of the characteristics of the Driessen Cone as applied to the concentration of uranium ores. This project is a part of the continuing program of the Atomic Energy Commission and is financed by a grant from the National Research Council.

In the Department of Chemical and Petroleum Engineering, research activities have continued but on a somewhat decreased level of activity because of the difficulty of attracting graduating students in competition with industry. Work is continuing under a fellowship supported by the Interprovincial Pipe Line Company on "The Pipe Line Flow Characteristics of Selected Alberta Crude Oils". The Utilization of Natural Gas project of the Research Council of Alberta is continuing in the Department, the immediate work being concerned with a new experimental furnace for the manufacture of carbon black from natural gas. Work has also continued under this project concerned with "The Partial Oxidation of Butane". Work by a graduate student was also continued on "The Potentiometric Model Study of a Selected Alberta Oil Reservoir".

In the Department of Civil Engineering eight students were registered. Two theses were completed this session, entitled "Design, Construction and Use of a River Tray" and "Physical Properties of Light Weight Aggregate". The river tray work is a continuing project financed by the National Research Council.

Other research work under way in the Civil Engineering Department include "The Engineering Properties of Muskeg" and "Further Studies in Pre-Stressed Concrete". The Highway Research project of the Research Council of Alberta has continued to be handled in the Civil Engineering Department. Work has continued on the prevention of frost action in soils by chemical treatments applied to the soil. Additional financing for this project has been made available by the Prairie Road Builders' Section of the Canadian Construction Association and the Northeastern Paper Products of Quebec City, which is the research organization of the Anglo-Canadian Pulp and Paper Company.

A senior member of the staff in the Electrical Engineering Department has been on sabbatical leave at Imperial College in London during this session. Specialized technical services to industry and public authorities have been provided by all the engineering departments, and a number of members of the academic staff have provided consulting services to both industry and government departments. Relations between industry in the province and the Engineering Faculty have continued on a most satisfactory basis.



The new Engineering Building was occupied during the session by the Departments of Civil and Chemical and Petroleum Engineering. The new space greatly facilitated the handling of the large increase in student registration for this session. Substantial progress has been made in equipping the new laboratories, particularly in Petroleum Engineering. However, it has not as yet been possible to expand the accommodation in Electrical and Mining Engineering in accordance with the plan laid out incidental to the general University building program.

Major revisions in the undergraduate curriculum have been necessitated by the recent changes in the high school curriculum in the province. Incidental to the discussions concerning these, attention has been given to adequacy of the engineering curriculum in general. The possibility of broadening the course somewhat, particularly by the inclusion of a course in English, is being given serious consideration.

## **Report of Dean W. F. Bowker of the Faculty of Law**

### *Student Enrolment*

The graduating class of twenty-five is the smallest in the last five years. Thirty students were in second year and forty-three in first. It would be regrettable if the number entering each year were to fall below forty. Of greater importance than numbers, however, is quality. The Faculty is most anxious to admit only those whose character, aptitude and industriousness are of a high order. It is, of course, impossible to be sure of an applicant's traits, so the Faculty must either refuse to admit those who appear to be on the border line or else admit them knowing that the omens are unfavorable. This is one of the hardest and most important tasks of the Faculty and no ready test of qualifications exists. The Faculty does, however, obtain great help from the Director of Student Advisory Services.

### *Employment of Graduates*

The demand for articulated students far exceeds the supply. A number of graduates from other law schools take their articles in Alberta each year, and a good many more have come to work for oil companies. There are many opportunities in smaller centres but most graduates prefer to take the articles in a larger centre. There they remain after admission, and the demand of the small towns is not met.

### *Graduate Study*

One of our former students, David McDonald, is at Oxford on a Rhodes Scholarship, and the Alberta Rhodes scholar for 1954 is James Redmond of the graduating class. Of the graduates of 1952, Peter Loughheed is completing the two-year course at the Harvard School of Business Administration.

### *Curriculum*

For years the Faculty has been examining the curriculum with a view to revision. It is hoped that our recommendations will be ready by next session.

### *Library*

The John Weir Memorial Reading Room has now been in use for three years. We are fortunate in having as librarian Mr. Mills Shipley, who is not only a qualified librarian but a graduate of this law school. The students make



the greatest use of the facilities of the reading room. Fortunately they have access to the law stacks. The number of books in the library is growing steadily.

### *Special Talks to Students*

The Faculty continued the custom of having special talks for the students. Two talks have become an annual event—one by the Honourable Mr. Justice H. J. Macdonald, "Hints to Graduating Students", and one by L. Y. Cairns, Q.C., "Legal Ethics". Two or three other interesting talks were given this year.

### *Staff*

The only changes from last year are the return of the Dean from his sabbatical leave and the departure of Assistant Professor A. R. Thompson. He did good work during his three years here. The Faculty regrets that he decided to leave, though he had always intended to return to the practice of law. The staff consists of four full-time members and five sessional instructors. The latter are practising lawyers in Edmonton, all graduates of this Faculty, and they continue to make an important contribution to the instruction of the students.

### *Research*

Although the amount of published material is still rather small, it is increasing. Two members of the staff are engaged in graduate work which will ultimately result in published material. A list of this year's publications is in the appendix.

One of our graduates, Mr. George Crawford of Calgary, two years ago established a fellowship in memory of his father, the late Judge J. L. Crawford. The purpose is to assist members of the staff in research and pursuit of graduate work. This generous scholarship, which is unique so far as we know, has been and will be of great value to the staff.

### *Law Society*

The relationship continues close and cordial. The Dean is always invited to make a report on the law school at the annual meeting of the Law Society. Professor Smith made the report this year, the Dean having taken part the same day in another item on the program. The Benchers of the Law Society continue the custom originated four or five years ago of inviting the Dean to their semi-annual meetings. They have the Dean attend their sessions when legal education is on the agenda, and always invite his views.

Within the past year the Law Society has decided to undertake a program of continuing education. It was really begun at the January meeting. The Law Society asked the members of this Faculty if they would support such a plan and take part in it. The Faculty agreed. The session on Drafting of Wills at the January meeting marked the beginning of this program. It was considered a success. The discussion will probably be published.

### *Conclusion*

Again it is a pleasure to report a satisfactory year. The Dean had been away the year before and cannot speak too highly of the way in which Professor Smith as Acting Dean discharged all the Dean's duties. The co-operation and support which all members of the staff provide is a great contribution to the work of the Faculty.

## **Report of Dean J. W. Scott of the Faculty of Medicine**

Fifty-nine applicants were admitted to the first year of the medical course in September, 1953. This is one applicant below capacity but, because of last-minute withdrawals of candidates who had already accepted a position in the Faculty, it was impossible to obtain sufficient suitable applicants to fill the quota. As a result of these withdrawals, the Faculty will now demand a deposit of \$25 from each applicant when he accepts a position in first-year Medicine.

Two second-year and four first-year students have since withdrawn for a variety of reasons, and one partial student has been admitted as well as one student readmitted in January, 1954, after a year's illness.

The number of highly qualified applicants for admission has been dropping steadily in the past four years, so that of those admitted to Medicine in 1950, 73% had an average mark of 70% or greater, whereas in 1953 only 35% of applicants had an average mark of 70% or more. At the same time the number of candidates who had averages of 65% or less or those who were deemed poor risks for various reasons had increased from 0% to 18%.

It is interesting to note that of the students who were readmitted with averages of 70% or over, none have failed and only 5% are in any academic difficulty, whereas of those who had an average of 65% or less, 20% have failed and a further 30% are in difficulty, so that one-half of this group appear to be poor academic risks.

As this lowest group becomes a larger percentage of our total enrolment, we must expect an increasing number of failures. It is well known that each student pays fees which are the highest on the campus, and besides this the University has made a very large financial outlay in the teaching of each student. Thus each failure means considerable financial wastage to both the student and the University.

The students are now experiencing difficulty in obtaining summer employment as highly remunerative as has been obtainable in the past. It appears likely that some highly qualified students, who would be interested in a medical course, cannot enter the course because of inadequate financial support. An overall lowering of medical fees might well result in an increased percentage of more desirable students in the medical faculty and a subsequent decrease in the financial wastage occasioned by the withdrawal of poor students.

If, however, the number of well-qualified applicants continues to decrease, there will result, in all likelihood, a group of graduates with fewer of the brilliant members so necessary in maintaining and improving medical standards and knowledge.

Since some of the students now being admitted are definitely poor academic risks, the first year becomes, in a sense, a probationary year. In view of this fact it is felt advisable to alter (but not reduce) the medical fees. Accordingly, first-year fees have been reduced by \$150 to \$300 and the amount added to the fees of later years. Thus a student in his four years still pays the same total fees but has the financial burden eased for the first year, in which most of the failures or withdrawals occur.

The duties of the staff in several departments (particularly those teaching basic sciences) will be increased in the coming year as a result of the introduction of a School of Physiotherapy under the jurisdiction of the Faculty of



Medicine. The groundwork for this course was laid during the past year and the first students will register in September of 1954.

All the basic science departments are now indicating that the administrative and teaching loads of the individual members are so great that there is not enough time for the conducting of extensive research programs; this is leading to a feeling of dissatisfaction among members of the basic science departments.

The difficulty of maintaining a staff in the basic sciences in view of this great teaching load at the University and the low salaries compared to those obtainable in other places has resulted in the loss, in the past year, of one associate and one assistant professor.

The Faculty also suffered the loss, this time by death, of Dr. Irving Bell, Honorary Professor of Therapeutics, and Dr. Georges Fortier, Instructor in Obstetrics and Gynecology.

In the Departments of Anatomy, Bacteriology, Biochemistry, and Physiology, a total of nine graduate students are working towards the degrees of M.Sc. and Ph.D. Most of these students will work a twelve-month year rather than the usual eight-month academic year. During their course they receive advice and supervision from members of the staff of the departments in which they are working.

The Committee on Graduate Training of the Faculty of Medicine continues to direct the studies of various doctors (graduates of this and other universities) who are taking work leading to certification as specialists in the various branches of medical sciences. There are at present twelve trainees obtaining training as directed by this committee. Of the twenty-three trainees of this committee who had completed their course by January, 1954, eleven are on the staff of this medical school. It should be indicated that all this training is without expense to the University or the government, but that the whole-hearted and active support of the staff is necessary for the program to be as successful as it has been to date.

As in the past, the staff has devoted much time to extramural functions. Local and national and even international learned societies benefit from the administrative ability and scientific knowledge of our full-time and part-time staff. The medical refresher course and travelling teams of teachers give Alberta practitioners the latest knowledge of the diagnosis and treatment of various conditions and the men engaged in research report their findings at various meetings and in the scientific press (a list of publications during 1953-54 by the staff is appended to this report).

Financial support for the research mentioned has come from the Medical Research Fund of the University, the National Research Council of Canada, the National Cancer Institute, the Alberta Cancer Society, and the Defence Research Board. Two beds for clinical research at the University of Alberta Hospital are supported by the Alberta Cancer Society and the Kinsmen Club. The McEachern Laboratory for Cancer Research has been in constant use by various research workers and in the past year has been very well equipped with Biochemical and Radioisotope equipment furnished largely by the Alberta Cancer Society.

Distinguished visitors who have visited the Faculty in the past year and have spoken to the staff and/or students are: Dr. J. Z. Young, Department of Anatomy, University College, London; Dr. S. Hadfield, Pathologist for the



Royal College of Surgeons, London; Dr. E. T. Bell, Professor Emeritus of Pathology, University of Minnesota. The stimulating effects of such visits for both staff and students cannot be overemphasized.

### **Report of Prof. H. E. Penhale, Director of the School of Nursing**

Considerable thought is required to answer the question, What kind of nursing care must be planned for individuals, in the near or distant future? Emphasis in the past has been placed on the need to acquire scientific knowledge and technical competence. In addition to these abilities, the nurse must develop the ability to understand her patient, to work co-operatively with professional and non-professional workers in her own field and in allied fields, to understand her relationship with the patient's family and to understand her relationships with the community. This change in philosophy necessitates marked changes in the curriculum—a few of which have been implemented during the past year.

The total enrolment in the School of Nursing continues to increase. Three hundred and forty-seven students registered in the eight programs, an increase of twenty-three over the preceding year. There are fifty-five in the five-year degree program, forty-five in the four-year degree program, ten in the one-year course leading to the Diploma in Public Health Nursing, fourteen in the one-year course leading to the Diploma in Teaching-Supervision in Schools of Nursing, seven in the four-month course leading to the Certificate in Advanced Practical Obstetrics, and one in the postbasic program leading to the degree. In September 190 diploma students and six affiliating students from the Provincial Mental Hospital registered. A class of fifteen diploma students and four affiliating students registered in February.

During the year a number of changes have been instituted in the undergraduate program. Requirements for promotion and graduation were more clearly defined and became effective on September 1, 1953.

On September 1, the student allowance was increased from \$10 to \$12.50 per month. The allowance is now given for thirty-two, rather than for thirty-one months of the course.

On October 1, a change in the vacation program was instituted. Each student receives twenty-eight days in each year plus three statutory holidays over the Christmas season. The vacation may be divided in order that each student have part of her holiday during the usual holiday months.

On January 11, 1954, another unit was opened at the University of Alberta Hospital. This unit provides the students with clinical experience in psychiatric nursing.

A recreational program was developed and continued throughout the year. This included a choral group under the direction of Mrs. G. Kay Greene and a sports program under the direction of Miss June Holman.

Curriculum revision, started in 1952, has continued. Courses which were taught in the senior year are now offered earlier in the program and nearer the time when the students will be receiving their clinical experience. Several of the courses have been grouped in order to eliminate a number of the very short courses formerly offered. There is a more clearly defined pattern of rotation for students through the clinical services. The paediatric experience will be improved through arrangements for field visits to the South Side Health Clinic.

A committee has been working on the revision of nursing procedures in order that the teaching be in accord with clinical practice.

Students in the postgraduate courses were given the opportunity of qualifying as examiners and instructors in first aid. This course was given by an instructor from the Canadian Red Cross Society.

The concern felt by the nurses over the poliomyelitis epidemic necessitated a reorganization of the timetable in order that they might volunteer their services. The Administration at the Royal Alexandra Hospital have expressed their gratitude for the assistance which the postgraduate students gave during the two-week period in November when the epidemic was at its peak.

A number of changes were made in the four-month course leading to the Certificate in Advanced Practical Obstetrics. Classes were given on the Obstetrical Unit at the University of Alberta Hospital, thereby making better use of the clinical facilities. Principles of Teaching and of Ward Administration were included in the course for the first time.

The staff continues to assist nurses throughout the province. A short course on "Nursing and Poliomyelitis" was offered in October. In March a five-day course in "Team Nursing" was offered in Edmonton and repeated in Calgary.

The staff participated in the program for Farm Young People and in the High School Career Day programs.

The staff join me in expressing our thanks to members of the University of Alberta Hospital Board, to the Medical Staff, especially those who assisted in the teaching program, to the members of the Council of the School of Nursing and to the Department of Extension for their continued interest, co-operation and support.

### **Report of Dr. M. J. Huston, Director of the School of Pharmacy**

#### *Academic*

Dr. M. J. Huston, Director of the School of Pharmacy, was on sabbatical leave during the term. He is carrying out research in the field of marine physiology at the University of Washington.

Dr. B. E. Riedel completed the requirements for the Ph.D. degree in Biochemistry at the University of Western Ontario and was awarded this degree at their Fall Convocation. During the summer he carried out a biological research project at the Atomic Energy Commission at Chalk River, Ontario. This research was made possible by a grant from the Department of Public Health given to Dr. Riedel.

Mr. J. R. Murray returned from the Ohio State University, where he spent a year's sabbatical leave working towards the doctorate degree.

Mr. D. C. Hobbs was engaged for a second year as Sessional Lecturer.

Mr. D. R. Innes served as Sessional Lecturer for the academic year.

Comprehensive oral examinations were again conducted for all students in the graduating class.

#### *Extension*

The refresher course in conjunction with the annual convention of the Alberta Pharmaceutical Association was again conducted by the School of Pharmacy. The meetings were held in Banff.



Extension bulletins on recent advances in Pharmacy were prepared and distributed to all pharmacists by the Alberta Pharmaceutical Association.

The third Interns' Night held at the School was well attended. The program closely paralleled that of previous years.

The School organized and conducted extension lectures at nine district meetings of the Alberta Pharmaceutical Association during the winter. The Canadian Foundation for the Advancement of Pharmacy assisted the provincial association financially in this project. Meetings were held at Edmonton, Calgary, Lethbridge, Medicine Hat, Vegreville, Camrose, Red Deer, Stettler and Drumheller. Faculty members presented a total of thirty-three lectures, while guest lecturers presented three. Some 250 pharmacists attended. It is felt that the interest shown will warrant continuation of the lectures on an annual basis.

Dr. Riedel again served as an abstractor for the Physiology, Biochemistry and Pharmacology section of the *Excerpta Medica*. He also continued his position as Chief Training Officer for the University Reserve Squadron. Mr. Anderson was an active member of the Y's Men's Club.

Staff members presented papers to professional societies, service clubs and similar groups as follows: Dr. Huston, 5; Dr. Riedel, 22; Mr. Anderson, 14; Mr. Murray, 12.

### *Research*

Dr. Riedel directed two graduate students in projects related to phosphorous metabolism in cancer studies. He has planned and organized the isotope laboratory of the McEachern Cancer Research Laboratory, which is now in operation.

Dr. Riedel also collaborated with Dr. R. K. Brown in the testing of the carcinogenic properties of certain indole compounds when fed to rats.

Mr. Murray carried out research on hypertension in experimental animals.

Other problems being investigated included: (1) Photomicrography of Alkaloidal Crystals, (2) The Effect of pH on Germicides in Ointment Bases, (3) The Effect of Controlled Agitation on Emulsion Formation; (4) Characterization of Certain Drugs as Reineckate Salts, (5) Chromatographic Separation of Sulfonamides, (6) Analysis of a Suburban Drug Store, (7) Chelating Agents in the Removal of Zinc from Rat Tissues, (8) Survey of Hospital Pharmacy in Alberta, (9) Infra-red Drying in Pharmacy, and (10) Drug Absorption from Ointment Bases.

### **Report of Dr. A. L. Doucette, Director of the Calgary Branch**

This report represents a compilation of data and information on the operation of the Calgary Branch of the University for the 1953-54 session as supplied to the Director by the following persons: the Assistant to the Director, the Secretary of the Faculty of Education, the Supervisor of Advisory Services in Calgary, the Supervisor of Medical Services in Calgary, and the Assistant Provost in Calgary.

### *Faculty of Arts and Science*

(a) To the Arts and Science offerings of 1952-53, the first year of Commerce was added in the fall of 1953 and two Sessional Instructors were appointed to give instruction in Accounting 1 and Commercial Law 41. There were twelve



students enrolled in the Commerce program and during the year two have dropped out.

One regular member of the Arts and Science staff was dropped because of low enrolment in courses offered. German was removed from the timetable and an arrangement was made to have a city high school teacher give Latin 2 on a part-time basis. Student enrolment this year is just about the same as last—a little down in Arts and Science but with a net registration slightly higher as a result of the addition of Commerce. We have had fifty-three full-time students.

(b) *Research*: Staff research activities are necessarily limited to the summer months because of pressure of lectures and laboratory supervision during the regular term. A. R. Prince, Assistant Professor of Botany and Zoology, assisted the Department of Forest Pathology in an extensive classification of mosses and lichens. By arrangement, he kept samples of all the materials he examined, thus adding to the collection of the Calgary Biology Department.

Victor E. Graham, associate professor of French, with a \$200 grant from the Staff Research Fund, carried on work on a critical edition of the works of Philippe Desportes, a French poet of the sixteenth century. Microfilms of editions unavailable on this continent were procured from the French Bibliothèque Nationale and the project should be completed within a year.

(c) *Open House at the Calgary Branch*—For the third successive year, the Calgary Branch of the University of Alberta held Open House. This year it came on March 10 during Education Week and all classes and laboratories were in full operation. The Students' Union Building was open, basketball games were performed in the gym, and a rehearsal of the Choral Society was held. As special added attractions, Mr. Alex Markle, Secretary of the Alumni Association, conducted showings of the film, "Spring Convocation", which aroused great interest, and the Drama Society gave a second showing of Christopher Fry's "A Phoenix Too Frequent". The Open House was most successful and attendance was estimated at close to 1,000 persons.

(d) *Closing Exercises*—Following the pattern of previous years, the closing exercises of the Calgary Branch were held in Central United Church under the chairmanship of the Chancellor, Dr. E. P. Scarlett. Parents and friends saw students and academic staff in procession, the latter in their robes, and greetings were brought by distinguished guests—President Stewart, Mayor Mackay, Mr. Aubrey Earl, who represented the Minister of Education and the Premier of the province, and Deans Smith and McCalla. The address, "Challenge Unlimited", was given by Grant MacEwan, and class history and valedictory by students. Following the ceremony in the church, students and staff received guests at tea in the University buildings.

(e) *Humanities Association*—In the fall of 1953, a Calgary Branch of the Humanities Association of Canada was formed under the chairmanship of Dr. V. E. Graham. Membership in the Association reached forty-four, and five very successful meetings were held. Dr. E. P. Scarlett addressed the first, and at the second a panel on Education with Drs. Hardy, Swift, Coutts and Mawat drew the biggest turnout of the year. At the third and fourth meetings, papers on literature were given by Dr. and Mrs. Watson and Drs. M. H. Scargill and E. F. Guy. At the final meeting on April 2, Dean Bowker of the Faculty of Law spoke on "Freedom of Speech".

(f) *The Alliance Francaise*—The Calgary French Alliance held its regular meetings at the University Branch again this year. The President for 1953-54 was Dr. V. E. Graham, Associate Professor of French. Local speakers were heard and three visiting speakers from France included Calgary in their itinerary under the auspices of the Union of French Alliances.

Each year the French Embassy allocates to the University in Calgary and to the Calgary French Alliance a sum of money for the purchase of French books. This year, as was the case last year, the French Alliance turned over to the University its appropriation. Dr. Beauchemin, Honorary President of the French Alliance, is also the donor of an annual prize in French awarded to the best student in French 2 at the Branch.

(f) *Publicity*—The city of Calgary is becoming more and more aware of the existence of a university in the city. Our Open House and Closing Exercises have been widely publicized and members of the University staff have carried on extension activities in the city which have helped to create goodwill toward the University. In particular, the Humanities Association has brought to the public the sort of activity that is customarily associated with a university.

### *The Faculty of Education*

(a) *Enrolment, Staff and Course Offerings*—The enrolment of the Faculty of Education, Calgary Branch, in 1953-54 consisted of ninety-two Temporary License students and 111 Bachelor of Education students, making a total of 203 students. In addition to these full-time students there were eighty-three Faculty of Education students taking part-time classes, making a grand total of 286 students in the Faculty of Education using the facilities of the University.

The staff at the Calgary Branch of the Faculty of Education were ten in number, assisted by two staff members from the School of Physical Education, and one Librarian and an Assistant Librarian. There were three non-academic staff members in the General Office at the Calgary Branch.

The Calgary Branch offers the first two years of the Bachelor of Education degree program and the first three years of the Bachelor of Education in Industrial Arts. In the latter program, the University uses the facilities and the staff of the Institute of Technology and Art.

(b) During the 1953-54 session Mr. J. D. Aikenhead completed his research on "Reasons Why Grade Twelve Students Do or Do Not Choose Teaching as a Career". This research thesis will complete the requirements for Mr. Aikenhead's Doctor of Education degree at the University of Oregon.

(c) *Practice Teaching Program*—The practice teaching program at the Calgary Branch was essentially the same as in previous years. Nine rooms in the University Demonstration School are used for practice teaching purposes for the one-year students, while six other city rooms are also used for one-year students, and fifteen rural classrooms are also made use of. Besides this, some fifty-one city classrooms are used for Bachelor of Education and Bachelor of Education in Industrial Arts students.

(d) *Placement*—The Calgary Branch of the University provides an informal placement service for any students who desire that type of help. Dr. T. G. Finn acts as Placement Officer for all matters dealing with Education and maintains correspondence with the Superintendents of Schools and with School Boards. Dr. J. T. Woodsworth acts as Placement Officer for all students requiring jobs outside of Education: in this way students can get enough money to return to



University during the next year. Dr. Woodsworth works in close co-operation with the National Employment Service.

(e) *Extension Courses*—There has been an increase in the number and extent of the extension course offerings at the Calgary Branch this year. Two courses were offered for credit—Accounting 1 and Education 326. Some thirty-two students took Accounting 1 for credit at the University of Alberta, and fourteen students enrolled in Education 326 for credit. The non-credit courses included a Refresher Course for Teachers, a Real Estate course, and courses in Effective Reading, Law for the Layman, Income Tax Problems in Business, and Effective Writing. The enrolment in each of these courses has been very satisfying.

### *Advisory Services*

The nature and extent of the advisory services at the Calgary Branch of the University of Alberta are as follows:

(a) *Counselling by Staff Members*—As in previous years, Faculty members in both Education and Arts and Science have shared the counselling load of this Branch. Some members have not felt adequate to the task; however, there is no evidence today that this method of assigning counselees to various staff members is ineffective or undesirable.

(b) *Activities of the Advisory Service Office*—Dr. J. G. Woodsworth is in charge of the Advisory Services office. He states that the office has not yet adopted the practice of tabulating every interview either in regard to numbers held or time taken for each individual interview. However, it is estimated that about ten hours a week is spent interviewing or doing other Advisory Services business, which is approximately equal to a counsellor's lecture load of twelve hours per week.

### *Medical Services at the Calgary Branch*

Medical Services are under the supervision of Miss M. O. Cogswell, R.N., who replaced Miss R. Chittick in September, 1953.

In Calgary there is no infirmary for the students. A nurse looks after the Medical Services and refers special problems to the Director and another member of the Faculty.

The students pay a medical fee of \$4 per year for services which include a physical examination at the Calgary Associate Clinic and also routine treatment by the nurse for ordinary acute illnesses or injuries.

During the 1953-54 term, 250 students had physical examinations and sixty-three students were rechecked or referred for illness or accident. There were no serious accidents or long-term illnesses.

A very successful five-day nursing course, sponsored by the Department of Extension, was held in March. Forty-seven nurses from all parts of the province attended, as well as several from British Columbia and Saskatchewan.

### *General Work of the Assistant Provost, Mr. E. W. Buxton*

(a) The Assistant Provost is Secretary of the Calgary Committee on Student Affairs. At the Calgary meeting held on March 15, all student organizations reported an active and successful year. Under the direction of the Students' Council, the recently-acquired Students' Union Building increased in beauty



and in utility by the furnishing of a comfortable lounge and the equipping of recreation rooms and offices for student organizations.

(b) The Education Undergraduate Society worked in close harmony with the Alberta Teachers' Association to encourage a professional outlook among members of the Faculty of Education.

(c) In addition to revealing a vigorous interest in all campus activities, the Arts and Science Club sponsored industrial visits and a special formal dance. These Arts and Science Club activities promise to become annual events.

(d) The University Athletic Board sponsored a well-balanced program of intramural and interschool sports which included basketball, volleyball, badminton and curling.

(e) Student publications included the monthly *Cal-Var*, a weekly *Cal-Vette* and pamphlets for prospective students.

(f) The 1953-54 Calgary Evergreen and Gold is expected to be in the hands of the students by April 20.

### Conclusion

All in all, it is the opinion of the Director that the Calgary Branch of the University has experienced a very successful year in all aspects of the administration. The co-operation of staff members is complete indeed and the Director appreciates the ready and willing assistance given by the various branches of the administration and by heads of the departments and co-workers at the University in Edmonton.

## Report of Dr. John W. Gilles, Director of the Summer Session

### Registration and Attendance

The advance registration for the University of Alberta Summer Session reached a total of 1,965, a decrease of ninety-seven from 1952. Cancellations of registrations were received from 128 students and another 215 registrants failed to attend. As a result, 1,622 students appeared for classes. The corresponding figure for 1952 was 1,668. A summary of the attendance figures follows:

	Veterans			Civilians			Faculty
	Men	Women	Total	Men	Women	Total	Total
Education .....	30	3	33	490	902	1392	1425
Agriculture .....				3		3	3
Arts and Science .....	8	1	9	42	35	77	86
Commerce .....				4	1	5	5
Household Economics .....					7	7	7
Engineering .....				2	1	3	3
Nursing .....							
Pharmacy .....	1		1	2	2	4	5
Graduate Studies .....	6		6	57	13	70	76
Auditors .....				2	2	4	4
Specials .....	1		1	7		7	8
	46	4	50	609	963	1572	1622

Of the students who actually attended the Summer Session, 87.7% were reported as registered in the Faculty of Education, as against 88.1% for 1952. Students registered for graduate work in the Summer Session constituted 4.7% of the total registration as compared with 3.8% in 1952.

## *Instructors*

The Summer Session teaching staff was comprised of a total of 87 instructors, two less than in 1952. The following summary indicates the sources from which these instructors were drawn:

### *Classification of Instructors*

Full-time members of University staff .....	46
Instructors from Affiliated Institutions .....	2
Visiting Instructors from Alberta:	
Department of Education .....	2
School Systems .....	10
Others .....	6
	— 18
From Other Provinces .....	10
From U.S.A. ....	11
	— 39
	87

Visiting instructors from outside the province included the following: Dr. Dalbir Bindra, McGill University; Mr. Donald S. Blair, Seattle Public Schools; Mr. Lawrence R. Cluderay, Vancouver, B.C.; Mrs. Della Davison, Iowa State College, Ames, Iowa; Mr. Guyot Frazier, Oregon State College, Corvallis; Mr. Charles W. Harwood, Oregon State College, Corvallis; Miss Frances Holland, Plattsburg Public Schools; Mr. James A. Hood, University of Saskatchewan; Mr. John A. Irving, University of Toronto (Victoria College); Mr. Louis F. LeGall, University of British Columbia; Dr. Victor Linis, University of Saskatchewan; Miss Jean McEwen, University of British Columbia; Dr. W. John McIntosh, Toronto Public Schools; Miss Mary Cleta Scholtes, Minneapolis Vocational School; Dr. J. W. Sherburne, Oregon State College, Corvallis; Dr. Stuart R. Tompkins, University of Oklahoma, Norman, Okla.; Rev. Father J. Tremblay, Petit Seminaire de Chicoutimi, Quebec; Dr. Frank Uhler, Federal Department of Agriculture, Ottawa, Ontario; Dr. Robert R. Wark, Harvard University; Dr. Louie W. Webb, Northwestern University; Miss Waneta Wittler, Utah State Agricultural College, Logan, Utah.

No adverse criticisms were received about the work of any of the visiting instructors. On the other hand, excellent reports were received about several of them.

## *Courses*

It was originally planned to offer eighty courses in the Summer Session. However, four of these had to be withdrawn because of insufficient registrations. At the last moment a course in dramatics, not originally scheduled, was added at the request of the Department of Fine Arts to accommodate a small group of students who required specialized training. Of the seventy-seven courses which were offered, seventy-five were full courses and two were half courses. Thirty-one of the courses offered had laboratory requirements varying from five to fifteen hours per week.

Industrial Arts courses were again taught in Edmonton at Victoria Composite High School by members of the staff of that school. No Summer Session courses were offered in Calgary.

## *Size of Summer Session Classes*

Except in the cases of courses where specialized equipment needed for

teaching was available only in limited quantities, no attempt was made to place registration quotas on Summer Session classes. As a general rule, if the number of students registered in a course became too great for one instructor to handle efficiently, one or more additional sections were formed and additional instructors were appointed. Thus, in general, no artificial barriers were placed in the way of students' registering in the courses of their choice, while at the same time instructors were protected against having exceptionally heavy classes.

The following table shows the distribution of Summer Session classes according to size:

<i>Size of Class or Section</i>	<i>Frequency</i>
10 students or less .....	15
11 to 40 students .....	46
41 to 60 students .....	17
61 to 80 students .....	7
81 to 100 students .....	2
	—
Total (classes or sections) .....	87

It will be noticed that sixty-one classes (approximately 70% of the total) enrolled fewer than forty students each. There were twenty-four classes which drew from forty-one to eighty students each. A small number of classes falling in this category might have been sectioned to advantage, but in none of these courses was there a serious hardship imposed on either students or instructor. This leaves only two classes which definitely should have been reduced in size by sectioning. One of these was a History class where the instructor was given the assistance of an expert reader. The other class was not sectioned, largely because the instructor himself advised against it.

The above table suggests, but does not show clearly, that a fairly large number of Summer Classes were relatively small. In fifteen classes ten or fewer than ten students were enrolled. There were forty-two classes in which there were fewer than thirty students. This is an improvement over 1952, when there were fifty-two classes in this category.

Experience seems to show that with the present scales of instructional fees and instructors' honoraria, the Summer Session can meet its direct costs on an average class load of thirty students per instructor. In the 1953 Summer Session the average class load was 32.5 students per instructor.

### *Special Events Program*

That part of the Special Events Program which was directly sponsored by the Summer Session consisted of three musical programs and one lecture. Miss Lillian Kester of Edmonton opened the series with a very fine piano recital. The lecture was given by Mr. John A. Irving, Head of the Department of Philosophy at Victoria College, who spoke on "Philosophy and World Understanding". Mr. Lawrence R. Cluderay of Vancouver provided a very fine organ recital. The lecture was given by Mr. John A. Irving, Head of the Department of Music at Victoria College, who spoke on "The Organ in the Church". The organ recital, were heard in a delightful piano and song recital. The choral recital presented by the combined music classes of the Summer Session, under the direction of Mrs. C. Higgin, Mr. Lawrence R. Cluderay and Mr. Raphael Lopatka, brought the series to a close. Two Summer Session students, Miss Ida Anton of Medicine Hat and Miss Marjory Brown of Calgary, appeared on this program as soloists. There was a perceptible decline this year in the number of students who attended these Special Events Programs.



The Summer Session Students' Council and the local branch of the Institute of International Affairs jointly arranged a public meeting in Convocation Hall, at which Dr. Stuart R. Tompkins, visting instructor in History from the University of Oklahoma, spoke on "Russia and the West".

During the course of the Summer Session, students had the opportunity of attending the Studio Theatre production of "Boy Meets Girl". Students in Education 136 and Education 236 took an active part in this production, which was under the general direction of Mr. Gordon Peacock.

A special Sunday service was held in Convocation Hall on July 26th, with the Reverend D. J. C. Elson, Dean of St. Stephen's College, as Minister in charge. The large attendance justified a continuance of this feature of the Special Events Program.

**Report of Dr. Osman J. Walker, Director of the School of Graduate Studies**

The number of candidates in the Ph.D. program is steadily increasing. Five departments, namely, Animal Science, Biochemistry, Philosophy, Physics and Plant Science, now have students working for this degree. One of the highlights of the year was the granting of the first Ph.D. degree at this University in the Fall Convocation.

The School is happy to report that the D.Sc. degree will be conferred on Professor E. H. Strickland of the Department of Entomology at the May Convocation. In connection with his candidature, many glowing tributes were made by the three external examiners who considered the scientific value of his fifty scientific papers.

*Registration*

Following the trend of the last few years, there has been a small decrease in the registration of students in the School this year. This has been the case with Special Graduate students and with candidates for the various Masters' degrees. The total registration for the academic year amounted to 277, made up of 83 in the Summer Session and 194 in the regular session. After allowing for 28 registered in both sessions, it can be seen that 249 different individuals were undertaking graduate work. There were only 27 women registered in the regular session. The distribution of students according to session and degrees sought was as follows:

	Regular Session	Summer Session	Total	Duplicates	Total, less Duplicates
Master of Arts .....	38	15	53	12	41
Master of Education .....	43	58	101	15	86
Master of Science .....	60	1	61	1	60
Doctor of Philosophy .....	12	.....	12	.....	12
Working for degrees .....	153	74	227	28	199
Special students .....	41	9	50	.....	50
Total .....	194	83	277	28	249

It will be noted that the majority of the students in the Summer Session are working for the M.Ed. degree. During the regular session, candidates were proceeding to advanced degrees in 28 departments or divisions as follows:

Animal Science .....	3	English .....	6
Anatomy .....	2	Entomology .....	1
Bacteriology .....	2	Geology .....	9
Biochemistry .....	3	History .....	8
Botany .....	1	Mathematics .....	1
Chemistry .....	7	Modern Languages .....	3
Chem. and Pet. Engineering .....	4	Pharmacy .....	2
Civil Engineering .....	8	Philosophy and Psychology .....	13
Classics .....	1	Physics .....	7
Dairying .....	2	Physiology .....	2
Elementary Education .....		Plant Science .....	10
Secondary Education .....	43	Political Economy .....	8
Education Psychology .....		Soils .....	2
Electrical Engineering .....	1	Zoology .....	4

*Recommendations for Degrees*

The degrees awarded at the October, 1953, and May, 1954, Convocations were 38, made up of: M.A., 5; M.Ed., 5; M.Sc., 27; Ph.D., 1; total, 38.

*Scholarships and Fellowships*

There is still a shortage of applicants for scholarships. Last May, three were not awarded and one was later resigned. Two of these four were not awarded in October after canvassing departments affected. This spring the same situation exists.

**Report of the Librarian, Miss Marjorie Sherlock**

The three libraries which compose the University Library—the Rutherford Library, the Education Library, and the Library of the Calgary Branch—have just completed the busiest year of their history. During the past three years the students have “discovered” the library and its value to them in their work. This has entailed a much heavier use of books and reference material in all departments, as well as a marked increase in the use of reading rooms for study.

A comparison of figures for the three years is instructive. A count of readers is taken once an hour in the various reading rooms except the Smoking Room, which is unsupervised. This figure therefore represents actual reading hours. Attendance for the three libraries for 1951-52 was 181,417; for 1952-53, 308,481; for 1953-54, 340,360. Total circulation for 1951-52 was 148,602; for 1952-53, 160,348; for 1953-54, 176,068. Since in most of the reading rooms the books and journals are on open shelves directly accessible to readers, the actual use made of the books is many times greater than that shown by the recorded circulation figures.

The Summer Session, with a registration of approximately 1,700, made heavy use of the Library. To relieve the strain on the Education Library, a number of the larger education classes were again scheduled at the north end of the campus and the books for these courses were circulated from the Rutherford Library.

The Reserve Reading Room and the Browsing Area were again kept open in the evenings. More books were circulated from the Browsing Area during July than during any single month since the Rutherford Library was opened, indicating that the Summer School students appreciate the opportunity to read

current books of general interest, apart from those required for their courses.

With the offering of evening classes for credit by the University, the Library made special arrangements to enable these borrowers to obtain books from the stacks during the evenings, as well as professional reference assistance. Increased library hours are planned for the coming year which will make it possible to offer full stack service to these students in the evenings.

It is impossible to estimate the time spent in helping people outside the University to find the technical information they need. This work is increasing all the time, and readers such as these usually require much more assistance than students or faculty, as they are not familiar with the Library. Much of the burden of this work falls on the Main Reference Department and the Medical and Applied Science Reading Rooms.

At the present time any adult may use the Library for reading and reference, but borrowing privileges are extended only in certain specific cases—to Dominion, Provincial and Civic officials needing research materials, to the Friends of the University, to Alumni of this University or research workers from industrial organizations for a specific technical problem, and only when the books are not required for student use. For many years this service has been given from our Medical Library to Medical and Dental practitioners in the province, with a resultant heavy load on books and staff time.

As the only large research library in the area, we recognize an obligation to supply this service and are happy to do so within the limits of our capabilities, but it is a question of how much farther we can do so with our present staff without interfering with the proper performance of our work for students and faculty.

#### *Library Subcommittee*

This Committee met four times during the year. It discussed numerous problems connected with library policy and service and approved the expenditure of reserve funds for the building-up of back files of journals and other research material.

The Committee supported a request to the Board of Governors for increased book funds, based on the University's expanding program and the resultant increase in the Library's service load. As a result of these representations the fund for books, journals and binding has been increased by approximately 35%.

The Committee also approved a survey of the book needs of the various teaching departments, to be carried out by the Library during the summer of 1954. This survey will form the basis for a revision of departmental book appropriations.

#### *Reorganization of Services*

The reorganization of the various library departments and reading rooms, which was begun during our first year in the new building, was continued during the year. Simplification of routines and standardization of forms for the various areas have been carried out. Staff manuals have now been prepared to increase efficiency and give continuity. The purchasing and distribution of all supplies has now been centralized under the Order Department. A new method of recording book purchases and of informing the teaching departments of incoming books in their special fields has been worked out and will be put into effect this coming year.



*Inventory and Reclassification*—During the past two summers a full inventory of the library has been completed—the first in many years. During the process much outworn or outdated material was discarded, with the advice of members of the teaching staff, preparatory to the reclassification of the collection according to the Library of Congress scheme.

This reclassification program, which we estimate will require four years for completion, was authorized by the Board of Governors in April, 1952. Now at the end of two years' work the Chief Cataloguer reports the project running to schedule, with approximately one-half of the work completed. Two landmarks in this project were passed this year with the completion of the Medical and the Applied Science collections. Work has now begun on the Main Stack collection and it is hoped to have the Literature Section completed by the beginning of the fall term.

### *Staff*

The Library during the past year has had a full-time staff of 32, of whom 16 were qualified librarians. In addition a professional cataloguer and a typist are employed during the period of reclassification.

*Student Assistants*—In staffing the Library an attempt is made to employ student assistants wherever possible for the routine and more mechanical work, such as reserve book circulation, stack service, shelving, and the physical processing of books. This enables us to augment the staff during those periods of the year and hours of the day when the service load of the Library is heaviest.

During the past term sixty student assistants were employed for varying periods weekly—six in the Calgary Library, 16 in the Cataloguing Department in processes connected with reclassification, and the remainder in the Circulation Department, the stacks and various reading rooms, assisting at the desk or shelving books.

### *Special Facilities*

The special facilities of the Rutherford Library continue to give satisfaction to readers and staff. The Browsing Area has been used to capacity all year. The books displayed here include the best current publications in all non-technical fields—biography, fiction, travel, international affairs, poetry, fine arts—selected and displayed to permit students to see and handle good general books and to form the habit of reading for its own sake, apart from the more purposeful reading for their University courses. In 1952-53 there was a 90% increase in the use of this area and a further increase of 40% in 1953-54.

During the year the exhibits in the various cases in the main rotunda were changed monthly under the direction of the Order Librarian and were a source of interest and pleasure to library users and visitors. Rare books, manuscripts, pictures, Roman and Venetian glass, Greek pottery, Canadiana, antiquities and curios from Egypt, the Congo and the Canadian Arctic were included in the displays.

The Music Room continued to give pleasure to a regular and increasing group of listeners. Daily noon-hour programs were arranged by three senior Music students under the general supervision of a member of the library staff and were well attended. The late afternoon programs were discontinued because of poor attendance, but the weekly evening presentations of a full

opera, symphony or recorded play were well attended. The latter included Steven Vincent Benet's *John Brown's Body*, Ibsen's *Hedda Gabler*, T. S. Eliot's *Murder in the Cathedral*, *The Medea*, with Judith Anderson in the title role, and *Hamlet*, *Macbeth*, *Othello*, and *Romeo and Juliet*. The room was also used for class listening periods by the Department of English.

The Projection Room, equipped with motion picture and slide projectors, was used on an average of sixty hours monthly by the teaching staff for illustrated lectures. It was also used extensively for special refresher and short courses, and for evening meetings by campus and over-town organizations. The Seminars were used 122 hours weekly for regular classes, as well as for moot courts, conference groups, evening classes, extension short courses, and campus study groups.

*Visitors to the Library*—The Rutherford Library continues to draw a stream of visitors throughout the year, to see the building and to visit the Art Gallery and Indian Museum on the third floor. These include visitors from other campi, school children in organized groups, interested citizens, parents of students, and tourists. On the Saturday and Sunday of Varsity Guest Weekend 1,600 people toured the building and smaller groups are shown over the building constantly.

### *Stock of Books*

During the year, 7,793 new volumes were catalogued for the collection. This figure is less by some 1,600 than that for the preceding year, attributable to the strain of reclassification on the Cataloguing Department and to temporary staff shortages there. One thousand seven hundred and twelve worn or outdated volumes were withdrawn from the collection, giving a total of 148,917 accessioned volumes in the Library as of March 31, 1954.

It should be noted that much other material was added during the year which does not show in the accession record, including the Gonsett collection of Ukrainian literature, numerous long runs of journals not yet bound, documents and maps, and considerable material in microfilm form.

### *Report of the Library Departments*

*Order Department*—Order work was maintained at its usual level this year, with the addition of numerous back files of periodicals approved for purchase by the Library Subcommittee. Five thousand and ninety-four volumes were received on order, and 1,059 received and acknowledged as gifts. Supplies ordered totalled 624 items.

The department continues to sort and process uncatalogued material which has been in dead storage for some 20 years or longer because of lack of shelf space. This is being checked, bound and catalogued as rapidly as the pressure of other work permits. An additional 1,000 volumes were processed this year, and hundreds of duplicates were either stored for replacement or set aside for exchange—a very dusty and time-consuming task.

New processes and routines for ordering have been set up, involving the use of multiform order slips, which will keep the files complete at all times, lessen the danger of duplication, and enable us to give quicker notification to the teaching departments regarding books they have requisitioned.

*Cataloguing Department*—This department normally consists of three professional cataloguers and three typists. At present it is augmented by an



additional cataloguer and an additional typist during the reclassification period. This year the Department was short one cataloguer for a three-month period.

As during the previous year, all activities of the Department were overshadowed by Reclassification. To date all bound periodicals in the Library have been reclassified, as well as the entire collections in the Medical and Applied Science libraries. Work is now progressing in the Main Stacks.

With the addition in 1952, to the regular staff, of student assistants equivalent to three and one-third full-time assistants, the work has progressed in a very satisfactory manner. Great credit is due to the Chief Cataloguer, Mr. Peel, and his first assistant, Miss Hicks, for their efficient organization and direction of the undertaking. To March 31, 1945, 43,702 volumes have been reclassified.

*Reference Department, Periodicals and Binding*—The function of a reference department is to direct the reader to information in books, documents, periodicals, maps and pamphlets, and to instruct him in the use of all the library's material through the use of indexes, bibliographies, lists, catalogues.

This department, consisting of three professional librarians and two clericals plus a number of student assistants, provides general reference service to faculty and students, including interlibrary loan service for the faculty. It is responsible for the microfilm and microcard equipment, maps, pamphlets and documents, and for the Rare Book Collection, including the Rutherford collection of Canadiana. It is also responsible for the ordering and circulation of current periodicals and the binding of books and journals for the entire library.

During the session 1952-53, the attendance in the Reference Reading Room was 64,899, as compared with 35,637 the preceding year. There was a further notable increase in the use of this reading room in 1953-54, when attendance was 86,532. There was a corresponding increase in requests for reference service and the circulation of special reference materials.

During the session 1952-53, the use of the Periodical Reading Room more than doubled, with an increase of 121% in attendance and 169% in circulation.

This past year has shown a further increase of 30% in attendance and 74% in circulation. Heavy use has been made not only of the current journals in the reading room, but of unbound back files in the stacks. This great increase in the use of journals is of particular interest since in the old library quarters the students had no direct access to them.

Until the Library moved to its new quarters in 1951, lack of space prevented the maintenance of a documents collection. In the past three years we have been engaged in setting up such a collection, and the building up of back files, as well as the acquisition of current documents, has gone steadily forward. This work requires a great deal of preliminary checking, listing, recording, stamping, and shelving of documents each week. Five thousand five hundred and eighty documents were processed this past year.

We are a depository library for F.A.O. material and receive it as published, as well as selected material from Unesco. Last year the Library purchased a complete set of United Nations Official Records, to which we are adding current records as published.

With the institution of courses in Geography this past year, our map collection is being greatly augmented. Two thousand six hundred maps were processed in 1953-54, with many more awaiting cataloguing or on order.



Last year a collection of University Archives was organized and has now been completed under the following heads: Theses; Staff Publications; Calendars; Examination Papers; Gateway Files; New Trail Files; Alberta Folklore Collection.

During the year a total of 1,696 current journals were received; 1,936 journals or books were bound or rebound.

*General Circulation Department*—This department, with a staff of two professional librarians, three non-professional graduates, and one clerical assistant, augmented by student assistants, is in charge of the Main Delivery Desk on the second floor, and of the Browsing Area and book collections there, as well as the Reserve Reading Room and the Stacks.

Circulation during the year from the Reserve Room was 36,014; from the Browsing Area, 1,659; from the Stacks, 27,988—a total of 64,570 as compared with 64,726 in 1952-53. It is to be remarked that circulation for the Winter Session was higher than that of last year, while there was a decrease in circulation in the Summer Session.

Attendance for the year was: Reserve Room, 61,725; Browsing Area, 18,353; Stack users, 6,989—a total attendance of 96,976 as compared with 78,676 of the preceding year.

The reclassification of the book collection has caused considerable inconvenience and dislocation in the circulation service during the past two years, owing to the temporary rearrangement of the books under two schemes. This has made it difficult for the staff to locate and to shelve books and has necessitated the expenditure of much time in helping stack users to locate the books they need. Now that the reclassification of Tier 6 of the Stacks (the Literature Section) has begun, a major shifting of the books on that floor has become necessary, which is being done this spring. It is hoped to have order restored and the new scheme set up by the fall.

#### *Report of the Branch Libraries*

*Applied Science Reading Room*—This reading room serves the Faculties of Agriculture and Engineering and the Department of Chemistry. The staff consists of the Applied Science Librarian, one professional librarian and one graduate assistant (both shared half-time with the Medical Reading Room) and a number of student assistants.

Circulation figures give no indication of the use actually made of the books, since most of the books and the current and bound journals are on open shelves. Circulation for use outside the building for the year was 9,533 as compared with 8,820 the previous year.

Circulation figures give no indication of how much busier this reading room was than last year. Reference questions have jumped from 528 to 894, many of them coming from research men outside the University staff, who come to the Library to use our Engineering and Industrial Art Indexes and our technical journals and who require much reference assistance.

Use of the Reading Room for study continues to grow, with an attendance of 32,616 as compared with last year's 29,815.

*Law Reading Room*—Service in this Reading Room is given by the Law Librarian, one part-time graduate assistant, and five student assistants. Use

of the Library was greatly increased during the past year. Attendance was 31,193, an increase of 27% over that of 1952-53.

Books in the Reading Room and the adjoining Law Stack Room are freely accessible to law students, so no figures for their use are available except for the comparatively small group of textbooks and journals which circulate for overnight use. Circulation of these was 4,616, an increase of 77% over last year. There was a 20% increase in reference questions answered.

In the summer of 1953 the Law Librarian attended a Law Librarian's Institute at the University of California conducted by the Librarian of the Columbia University Law School, where many problems connected with law library work were studied and resolved.

*Medical Reading Room*—This reading room serves the Faculties of Medicine and Dentistry and the Schools of Nursing and Pharmacy. Most of the books and current journals are accessible to readers on open shelves, so statistics give no information on their use in the Library.

Circulation for home use for the year was 15,240 as compared with 15,784 last year. The evening attendance of 3,644 showed an increase of 39%, and the daytime attendance of 17,341 an increase of 24% over last year. These statistics would seem to indicate that the circulation of books and journals outside the Library is levelling off after the very considerable increases of the past two years. On the other hand, the students are relying more heavily upon the Reading Room as their place of study.

During the year 3,976 items were circulated to medical and dental practitioners in the province, an increase of 14% for Edmonton doctors and 18% for those outside the city.

This year the reclassification of this collection was completed. The scheme used here is that of the U.S. Army Medical Library. The great advantage of this system is already apparent, even after so short a period of use. The medical men are much better satisfied to have the journals arranged in alphabetical order again, after a short experience of arrangement by subject.

*Education Library*—This Branch Library is housed in the Education Building at the south end of the campus and is staffed by the Education Librarian, one graduate and two clerical assistants, plus a number of student assistants.

In September, 1953, a former study room directly above the Education Library was converted to a Reserve Reading Room. For the first time, we have been able to provide a quiet and well-supervised place of study for the Education students, and such heavy use has been made of this room that we wonder what we did before we had it.

Circulation during the year was 43,127 as compared with 41,202 the previous year. Attendance increased to 30,199 from the 1952-53 figure of 11,399.

This year an Education Library Committee consisting of three members of the faculty, with the Education Librarian as Secretary, was organized to advise on the selection of books for the collection and on methods of improving and expanding library service.

For three weeks commencing May 23, 1953, the Education Building was the headquarters for a workshop on educational administration, which was sponsored by the Kellogg Foundation and carried out by the Canadian Education Association. More than fifty administrators and superintendents from the ten Canadian provinces participated. The group made extensive use of the Educa-



tion Library and of the many new books which were purchased for their use. An even larger number of delegates (74) will be in attendance at the 1954 session.

*Calgary Branch*—This library serves the students and faculty in Education, and Arts and Science. During the year 1,128 volumes were added to the collection, which at March 31, 1954, numbered 16,459 accessioned volumes.

During the year, the Branch Librarian, with one full-time clerical and six student assistants circulated a total of 17,272 books, journals and pictures, an increase of 2,838 over last year's figure. As this is an open-shelf library in which readers have direct access to the shelves, the use of the materials in the reading room is many times greater than this figure.

Attendance for the year was 40,035; reference materials used 2,662 items; interlibrary loan for members of the faculty, 102; current journals received, 77.

The Library Committee was reorganized this year and consists of two representatives from each of the faculties of Arts and Science and Education, with the Branch Librarian as Secretary and the Director and Assistant Director as members *ex officio*. This committee advises on the selection of books and journals and other aspects of library service.

### **Report of the Provost, Professor A. A. Ryan**

#### *Student Activities*

The past year has seen little change in the number and variety of extra-curricular activities, although it is likely that their multiplication will pose new problems in the near future as attendance rises on the campus. The Scheduling Committee of the Students' Council, which meets in the spring to set dates for major events for the following year, has already more requests for such dates than can be granted. It has become the policy of the Committee to schedule most affairs for the same dates each year. Since the disappearance of the old class organizations, the clubs and societies representing the various faculties and schools have shown most vigor and are given preference in the scheduling of events on the campus. The Committee has always worked in conjunction with the Dean of Women and the Provost. This year the Director of Physical Education was invited to attend the meeting of the Committee and proved most helpful in resolving overlapping requests for the Drill Hall for social and athletic events.

Thanks to the fine fall weather, the very busy intramural sports program got off to an exceptionally good start this year, an important consideration with gymnasium facilities taxed to capacity. Once again both the men's and women's athletic teams have more than held their own in outside competition. After outclassing all opposition in their regular schedule, the men's senior basketball team unexpectedly lost a final series against U.B.C., who had been playing in a stiffer league. Just as unexpectedly, the Golden Bears' hockey team made a clean sweep of intervarsity hockey.

#### *Student Government*

During the past year the various student executives on the campus have continued to justify the freedom given them to manage their own affairs. A strong Students' Council, under the conscientious leadership of Mr. Doug Burns, has showed itself particularly mature and responsible. The executives of the



various faculty organizations and the residence house committees have continued to show a lively interest in promoting the social life of the campus.

It has become evident this year that a new and efficient pattern of student government is emerging to take the place of the old system disrupted and rendered inadequate by the sudden postwar expansion of the student body. Nothing has done more to make progress possible in this direction than the facilities provided by the Students' Union Building, especially since the building is not a heavy financial burden on the students. Next in importance to the concentration of Union affairs in one building has been the appointment of a permanent Secretary-Accountant. This full-time employee has proved invaluable in providing continuity from Council to Council and in assuring the prompt dispatch of the mounting business of the Union. For example, at the time of his appointment the Year Book had accumulated unpaid debts amounting to many thousands of dollars and was months late in publication. This year it appeared on time and with its financial affairs in order. The same businesslike attitude toward Union financing has been reflected in the budgeting by the Treasurer, Mr. Graham Ross.

This year has also seen the adoption of a completely revised and rewritten Students' Union Constitution. In recent years the much-amended Constitution had grown so bulky and self-contradictory as to be unworkable. A committee consisting of Tom Jackson and Jim Redmond removed the contradictions and reorganized the whole into a brief basic Constitution, a larger body of Bylaws and an appendix of Executive Regulations.

In preparation for next year, the University Athletic Board, which has operated independently since 1947, under the sanction of the Committee on Student Affairs, has been made a Committee of Students' Council. The Director of Physical Education will continue to act as chairman as in the past, and will in addition be responsible for the preparation of the budget of the Board. It is hoped that these changes will provide better continuity in the handling of the Board's finances and at the same time give the student body at large a more direct voice through the Students' Council in the control of campus athletics.

#### *Public Relations*

Under the able management of the students' Public Relations Officer, Mr. Bob Edgar, the three major public relations events of the year, the fifth annual Civic Banquet, the sixth annual Parliamentary Dinner, and the third annual Varsity Guest Weekend, were carried out successfully. The Weekend once again provided a focal point for the year's activities, with most of the faculties and clubs taking part. Attendance at the Weekend was somewhat below that of last year, but particular emphasis was placed on attracting senior high school students. To improve the liaison between students and administration and to give better continuity of effort, an advisory committee of the Weekend has been set up.

#### *Fraternities and Off-Campus Organizations*

The number of fraternities on the campus remains unchanged—eight men's and four women's. Tentative suggestions that professional fraternities be allowed on the campus have not been received favorably by the Advisory Committee on Fraternities and Residential Clubs. The University has, on the other hand, welcomed the opening of the fine Religious Institute Building adjacent to the campus by the Church of Jesus Christ of Latter Day Saints.

## *University Residences*

In spite of the fact that it is possible to admit only about one hundred upperclassmen each year because of the large numbers of freshmen applicants, the residences continue to exercise a stabilizing influence on campus life. The Wardens report satisfaction with the conduct of residence life by the men's and women's house committees under the chairmanship of Miss Dorothy Olsen and Mr. Max Adkins. The popularity of the residences is attested by a waiting list of several hundred names.

## *Discipline*

Not only has there been no disciplinary problem in the residences during the past session, but for the third successive year the Disciplinary Committee of the Students' Union has not been called upon to adjudicate a single case of student misbehavior.

## **Report of the Dean of Women, Miss Maimie S. Simpson**

### *Interviews*

1. Pre-Session. On Saturdays and after the close of school in June, girls came to discuss University entrance. After the interview in most cases, they were directed to Student Advisory Services, the Deans of the Faculties, or the Heads of Departments. Appointments were made for them. In two or three cases summer employment was found for them to assist them financially to enter the University.

### 2. Opening of Session.

#### (a) Financial assistance

(i) in private homes to work for room and board;

(ii) babysitting (with regularity);

(ii) student assistants in the Library (Rutherford and Education).

(b) Finding accommodation for a considerable number of girls who either had no place to live or who had an unsuitable place.

### 3. During the Term.

(a) Requests to discuss change of courses. Each girl was sent eventually to the Student Advisory Services and to the Dean of her faculty.

(b)) To discuss difficulties in certain courses. Instructor contacted; interview for the girl arranged, with satisfactory results in nearly every case.

(c) Emotional Difficulties. If thought sufficiently serious, Student Advisory Services, Deans of Faculties, and Medical Services were called in. One difficulty is that the cases are sometimes not drawn to our attention when they should be. Often all that the young woman needs is the opportunity to chat to an older person and to be reassured of a certain amount of security.

## *Extracurricular Activities*

1. As in previous years, a considerable number of dances, both formal and informal, were attended upon invitation from the students.

2. The Social Hour. All first-year women were entertained at the Coffee Hour in Pembina Hall. These very informal gatherings of twenty girls at a time are a very satisfactory means of allowing the girls to know the Dean of Women better, and a wonderful opportunity for her to know the girls.

Student executives, including the Macleod Club, were entertained when making plans for special functions.

Graduating Medical women and honors students in the Faculty of Arts and Science were entertained at tea.

The Wauneitas. Close relationship was maintained with the Wauneita Society, a group whose executive on so many occasions is called upon to be hostesses. The Lounge has been long enough in use now to make social functions held in it run smoothly, less time being required for actual planning of these functions.

To Miss Catherine Robertson, the President, and her excellent Executive we owe a debt of gratitude, for without them it would often be very difficult for the Students' Union to be good hosts and hostesses.

The monthly meetings of Panhellenic were attended at the request of the fraternity women.

The University Mixed Chorus was again accompanied on its trip to Calgary and will be accompanied on its Spring Tour to central and southern Alberta, commencing May 3rd.

### *The Infirmary*

All women students confined to the Infirmary were visited at least once, reading material supplied, and a short note was sent to mothers if requested by the girls.

### *Lectures*

Dr. Ross Vant again gave his much-appreciated three-lecture series to the first-year women; the average attendance was about one hundred.

### *Public Relations*

Twenty talks were given during the year. Of these, one was in Calgary, one at Elk Island Park, one at Bremner, the rest in Edmonton to service clubs, Home and School Associations, church groups, high school groups and the like.

One broadcast was given over CKUA and three Christmas broadcasts over the western network of the CBC.

### **Report of Dr. A. J. Cook, Director, Student Advisory Services**

The year has been characterized by a steady, year-round pressure of business due to the increased recognition of the availability of the services.

The Director attended the Conference of the Canadian University Counselling and Placement Association held in London, Ontario, in June, 1953. This association is still in its infancy, but provides a useful medium for exchange of ideas.

Visits to high schools were carried out during March, April and May. Some use was made of undergraduate students, and the reports from principals about student presentations were favorable. School visits, whether as part of panel groups on Career Days or as individual visits, are a necessary part of the information service which the University must expect to provide. The School Guidance Services are developing, but in many schools they are still embryonic. The school principals and teachers feel the need for these visits. They support the school effort. The impending growth of the University will render this liaison with the schools all the more necessary. In this connection, the role of the home-school associations needs attention. Parents need information also.



The passing of the Student Assistance Act by the Provincial Legislature in the spring of 1953 means that financial aid for deserving students has been given further support. The administration of the Act by two associated committees working together, one within the Department of Education and the other within the University, was developed through the summer and winter months. Despite the limited publicity last spring, the amount of financial aid rose this year over the previous year. It is the avowed aim of the University Administration to see that deserving students without sufficient financial means are enabled to obtain university education. There is still need for substantial scholarships for top-quality students and good scholarships for able students. The Director is continuing the study initiated by President Stewart two years ago; what happens to the students who complete high school matriculation with averages of 70% or better?

The pressure on the Department was steady throughout May until the opening of the session; correspondence and interviews with prospective students, the recounselling of students whose performance in the previous session was deemed unsatisfactory, non-resident housing for Summer School, for Medical and Dental students who register in the first week of September and for students registering later in the same month.

The arrangements for Freshman Introduction Week ran into certain difficulties last year. As a result, recommendations have been made and a sub-committee of the Committee on Student Affairs is being formed to supervise the planning of the program for Introduction Week.

The Study Tutorials which were introduced a year ago for students who found the going hard in the first term were continued this year for first-year Engineering students. In addition, a questionnaire was used for all new students having difficulty with their studies. It is hoped to make some analysis of the use of the study tutorial plan on the basis of the questionnaires and examination results.

The increasing pressure of the Department has necessitated adding a second stenographer to the office staff.

### **Report of Dr. P. S. Warren, Chairman of the Committee on Physical Education**

The following is a summary of intramural and intercollegiate activities for the year 1953-54 from the Department of Physical Education.

#### *Men's Intramurals*

The Men's Intramural Program had a very successful year but again was hampered with the lack of facilities and space. The following sports were offered in the fall program: golf, tennis, track and field, cross-country, touch football.

A new event was added to the program this year and was known as "Frontier Day". This day is in the theme of the old West and events such as log rolling, wood chopping and bucksawing are presented. The first annual Frontier Day was held in the middle of November and proved to be so popular that the Intramural Administrative Board is considering making this the largest event on the intramural program for the year.

The winter program consisted of basketball, volleyball, badminton, hockey and table tennis. It was necessary to limit the number of badminton participants in order to finish a proper tournament, because of lack of facilities.

There were approximately 1,600 participants in the Men's Intramural Program. However, some of these participated in more than one activity.

In addition to activities taking place in the Men's Gymnasium, the Intramural Department supervised activities in the men's residences, St. Stephen's College and St. Joseph's College. Sports directors for these aforementioned residences reported regularly to the Intramural Director. Mr. Walter Goos ran the sports program for the students of the Faculty of Education at the Education Building, and again they made use of the facilities to the maximum.

#### *Women's Intramurals*

The Women's Intramural Program was under the guidance of the Women's Athletic Association and under the direction of Miss Jocelyn Smart, a fourth-year Physical Education student. With this full-time assistance, the program was enhanced and an increase in participation was noted from 316 to 677. Events included tennis, golf, track and field, fastball, volleyball, table tennis, badminton, curling, basketball and swimming.

#### *Intercollegiate Athletics*

In April, 1953, the University of Alberta Golden Bears were Dominion finalists and played the Toronto Tri Bels for the Dominion championship. The series was the best of five games and was decided on the last game. In 1953-54 the Golden Bears were again champions of the W.C.I.A.U., defeating both Saskatchewan and Manitoba for the title, and were also the provincial senior men's champions, being undefeated in competition.

#### **Report of Dr. John W. Scott, Director of Student Medical Services**

During this session there have been no major epidemics. Fortunately only a relatively small number of students developed poliomyelitis and only one showed evidence of paralysis. No respirator cases occurred among the students. During the past few weeks we have had a number of cases of mumps in the Infirmary. Through the Registrar's office, however, we have been able to arrange that these students write their final examinations so that their year will not be affected.

We have appreciated the extension of the waiting room in the Infirmary. It is desirable at the moment that the furniture in this room be replaced. The Bursar is giving some consideration to this matter.

The major activities of the Student Medical Services are outpatient consultations and treatment at the Infirmary. This has been carried out as in previous years under the very able direction of Dr. J. F. Elliott, Dr. M. M. Cantor, Miss G. A. Revell and Mrs. J. H. Ward. We are finding that the cost of hospitalizing patients in the University Hospital accounts for a larger sum each year and contributes to our deficit.

The Student Medical Services now offers fairly complete facilities for diagnosis and treatment and year by year has been expanding the consultation services offered. The examination of incoming freshmen, together with chest x-rays, has been carried on as in previous years.

#### *Staff Education*

The Matron and Assistant attended the A.A.R.N. Convention in Banff. The Matron attended part of the Institute on "Team Nursing" in March, 1954. No one attended the "Civil Defence" or "Nursing Poliomyelitis" courses.



### *Medical Service Staff, 1953-54*

Director, Dr. J. W. Scott; Infirmary Physician, Dr. J. F. Elliott; Assistant Physician, Dr. M. M. Cantor; Gynaecologist, Dr. M. Hutton; Psychologist, Dr. S. Spaner; Dr. Carson.

### *Infirmary Staff*

Matron, Miss G. A. Revell, R.N.; Assistant, Mrs. J. H. Ward, R.N.; Relief Nurse, Mrs. H. M. Vango, R.N.; Nurses' Aide, Miss A. I. Folden; Housekeepers, Mrs. Bergen, Mrs. Cossentine, Miss J. McLaren; Relief Housekeepers, Mrs. D. Hawkin, Mrs. G. M. Bullock and others.

### **Report of Radio Secretary, Miss Margery W. Mackenzie**

Interest in radio was stimulated early in the fall through a successful two-day conference on radio techniques, attended by approximately sixty-five faculty members. A study of script preparation was directed by Mr. David Walker, Senior Talks Producer of the Canadian Broadcasting Corporation, Prairie Division, and a study of microphone techniques by Mr. Douglas Homersham, Director of Special Services, Radio Station CJCA, Edmonton. The conference concluded with a discussion on "Radio and Education—The Role of the University", led by a panel of speakers drawn from the field of professional radio and from the University faculty.

Between the middle of October and the end of March, the University presented twelve regular program series over Radio Station CKUA. These programs, presented during the early evening hours, Monday through Saturday, represented ten hours a week of broadcasting and constituted, over the five and one-half month period, a total of 338 separate programs. One hundred and forty-three of these, representing one hour each evening, were programs of recorded classical music. The remaining 195 programs were prepared and presented by faculty members of the University. They included series dealing with science, art, drama, music, literature, educational research, and the work of the University both within its walls and throughout the province. The one new faculty-sponsored program this year was *Art in Everyday Life*, presented by the Department of Fine Arts in conjunction with the Edmonton Museum of Arts. As a convenience to the broadcasters, almost all of the programs were recorded during the day for evening presentation.

Music programs have included the *Music Hour*, broadcast five times a week; the *Western Board of Music* program, consisting of recitals by Edmonton musicians; *Music of My Choosing*, during which faculty members played and commented on music of their personal selection, and a new program of light classical music, *Saturday Evening Concert*. The introduction of this last-mentioned program, which is broadcast from 8 to 9 o'clock, was prompted by the dearth of good musical programs on Saturday evenings. As a result of the favorable reception that has been accorded to it, this series, as is the case with the *Music Hour*, is to be broadcast throughout the entire year.

The addition in 1952 of a Program Producer to the staff of Radio Service has resulted in an improvement in the quality of the regular program series and has made possible this year the broadcast of fifteen additional programs and special events. These have included interviews with such visiting artists and speakers as Mr. Eric Newton, Mr. Ross Pratt, Professor Joseph Smith and Mr. Robert McFerrin, and the broadcast of such events from Convocation Hall



as the concert of the Mixed Chorus and an organ recital for the Western Board of Music program by Mr. Arthur Crighton.

Approximately seventy students have contributed in some direct way to the Thursday evening programs sponsored by the Student Radio Society. Student program series have included regularly presented campus news broadcasts as well as *Talent from the Campus*, which featured student musical artists, and *My Country*, a series of interviews with students from foreign lands. The Radio Society is given assistance by the staff of Radio Service, and from time to time some of its members are employed as the regular announcers for all University broadcasts.

During the University term all programs are broadcast from the campus studios. The spring and summer music programs, however, are prepared at Radio Service but broadcast from the studios of CKUA in the Provincial Building.

Programs have continued to be publicized by printed schedules, "The University of Alberta—On the Air". Eight of these have been printed in the course of the year and about 2,500 copies of each have been made available to interested listeners.

In an effort to obtain the opinions of some of the listeners in regard to the University programs, a questionnaire was sent in March to 1,001 persons on the regular mailing list. Four hundred and three replies were received, representing the very gratifying response of two out of every five persons. Comments in regard to all of the twelve program series, as well as the rating each was given, indicate that all University programs have a good audience of frequent or occasional listeners. The various music programs and the series, *Great Literature*, were chosen to attract the largest number of listeners. The *Music Hour*, by far the most popular program, was shown to have a very large audience of regular listeners. Criticisms, comments and suggestions for new programs were invited in the questionnaire, and the co-operative response of listeners to this invitation is providing valuable assistance to the Radio Service staff and the program conveners in planning the programs for 1954-55.

### Report of Professor R. S. Eaton of the Western Board of Music in Alberta

#### *Statistics and Estimates (Candidates and Fees)*

In February, May and June of 1953, the following figures apply:

Candidates	February	May	June	Total	Fees
Practical .....	82	.....	931	1,013	\$ 874.50 (February)
Theoretical .....	272	345	.....	617	4,740.75 (May, June)
				<hr/> 1,630	<hr/> \$5,616.25

This shows an increase of 237 candidates and an increase of \$1,798.00.

Revenue from sale of theory papers (Dec. 1, 1952, to Nov. 30, 1953), \$21.88. This shows a decrease of \$10.89 over a similar period last year.

#### *Centres*

##### (a) Practical:

February, 1953: Edmonton, Calgary, Red Deer.

June, 1953: Blairmore, Bonnyville, Bowden, Calgary, Camrose, Cardston, Chauvin, Dawson Creek, Donnelly, Edmonton, Falher, Fort Kent, Girouxville, Glendon, Grande Prairie, Hythe, Innisfail, Lacombe, Lethbridge, McLennan, Peace River, Pincher Creek, Red Deer, Ry-

croft, St. Paul, Spirit River, Sundre. (N.B. Italicized centres new in 1953.)

(b) Theoretical:

February, 1953: 28 centres.

May, 1953: 29 centres.

*Examiners for Practical Examinations*

Mr. Filmer Hubble, Winnipeg; Mr. Stanley Shale, Victoria; Mr. Ronald Gibson, Winnipeg; Miss Frances Port, Winnipeg; Mrs. Dorothy Hare, Calgary; Mrs. Beulah Doney, Edmonton; Mr. Leonard Leacock, Calgary; Mr. Douglas Millson, Edmonton; Mr. E. A. Moore, Edmonton; Miss Lillian Kester, Edmonton; Mrs. Dorothy Langmo, Calgary; Mr. Keith Bissell, Edmonton; Mr. A. B. Crighton, Edmonton; Mr. R. S. Eaton, Edmonton.

*Diplomas Granted*

Spring Convocation—A.Mus.: Ruth Alda Anderson, Aileen Marilyn Hartwig, Alexandra Munn.

Fall Convocation—L.Mus.: Dale Bartlett, Rosemary Holsworth, Alexandra Munn; A.Mus.: Francine Russell.

*Broadcasting*

Once again local teachers have agreed to assist with the programs illustrating pieces from the syllabus, and we were pleased to present the following well-known Edmonton teachers and musicians: Miss Ruth Chennells, Mrs. Beulah Doney, Miss Rosemary Holsworth, Miss Marguerite Jacobs, Miss Lillian Kester, Miss Doreen Stanton and Mr. Edgar Williams. One broadcast, illustrating trio music, was given by Mr. Bruce Hanson, Mr. Kurt Traxel and Mr. Arthur Crighton. Another was devoted to recordings of selections from the flute and clarinet syllabi.

*Recitals*

Regional recitals and presentations of awards were held in six centres during October and November, 1953, and young visiting artists again contributed much to the programs. Centres in which recitals were presented were: Edmonton, Calgary, Lethbridge, Red Deer, Grande Prairie and Fort Kent. The guest artists were Miss Lynn Newcombe, Miss Ellen Smith, Miss Rosemary Holsworth and Mr. John Wallin of Edmonton, and Miss June Daley and Mr. Victor Harbidge of Calgary.

*Scholarships, Bursaries, Prizes*

In 1953, awards totalling about \$5,000 were made to outstanding students. The Government of Alberta again contributed \$1,000 in the form of ten bursaries. Twenty-eight silver medals were awarded.

The following new or revived awards were made in 1953: Four music bursaries at \$50 each were given by the Western Board of Music, and remission of fees to the total of \$100 for seven students was also from the Western Board of Music. Edmonton section of the National Council of Jewish Women gave a \$25 bursary. The Canadian Nazarene College gave two prizes of \$15 instead of one; the Glendon Board of Trade and Mrs. E. B. St. Jean of Rycroft each gave \$5 prizes, and the Rycroft Home and School Association gave two prizes of \$10 and \$15.

### *Advisory Services*

This service is being continued, and the extra time devoted to this work seems to be appreciated, particularly by rural teachers.

### **Report of Major G. W. Reed, Officer Commanding, University of Alberta Contingent, Canadian Officers' Training Corps**

During this academic year the officers of the Contingent were Lt. Col. H. J. Bishop CD, Major G. W. Reed, Major H. C. S. Archbold, Captain A. T. Elder, and the Resident Staff Officer, Major R. C. W. Hooper CD. Col. H. A. Dyde, OBE, MC, QC, was appointed Honorary Colonel.

It is with deep regret that the death of Lieutenant Colonel H. J. Bishop CD, on 13th December, 1953, is reported. This officer was extremely competent and hard working, and during the short time in which he had command of the Unit introduced many effective ideas to assist in the problem of recruiting. On the death of Lieutenant Colonel Bishop, Major G. W. Reed assumed command of the unit.

During the summer of 1953, twenty-nine Lieutenants and Officer Cadets took their practical training course. One Second Lieutenant took his third practical training in Germany with the 27th Canadian Infantry Brigade. (One Second Lieutenant and two Officer Cadets will be training in Germany in 1954.) Of those training in Canada in 1953, Second Lieutenant K. E. Leslie won the Honour Cadet Shield as the best all-round cadet at the Royal Canadian Dental Corps School. This is the second year in succession that this award has been won by a member of the University of Alberta Contingent.

During the 1953-54 session there was a marked improvement in recruiting. Thirty-three first-year cadets enrolled during this period as compared with nine in 1952-53. In addition, eleven first-year cadets were enrolled under the Regular Officer Training Plan and took their training with the Contingent. The actual number of cadets taking part in the theoretical training given during the winter of 1953-54 was thirty-three in the first year, ten in the second and four in the third year. In addition, two officer cadets in the second year and four officer cadets in the third year, who were enrolled in the Regular Officer Training Plan in 1952-53, trained with their respective theoretical phases.

In order to give professional students a better understanding of the Army and careers open to them as Army Officers, programs were arranged for some of the professional Undergraduate Societies. At the November meeting of the Engineering Students' Society, Colonel J. B. Jones, OBE, CD, Chief Engineer of the Canadian Army for Army Headquarters, Ottawa, gave a very interesting lecture on military engineering, illustrated by a film. During the same month, the Dental Undergraduates' Society was addressed by Lieutenant Colonel F. J. McLean, CD, DDS, Command Dental Officer of Western Command. Lieutenant Colonel McLean's address concerned careers open to Army Dentists and included a display of equipment used in mobile dental clinics. At the December meeting of the Medical Undergraduates' Society, Colonel E. J. Young, OBE, CD, Command Medical Officer of Western Command, conducted a very interesting program of talks and films on the treatment and evacuation of casualties. Two Medical Officers recently returned from Korea, Major J. S. Evans and Major H. W. Greenidge, read short papers on the treatment of casualties and diseases encountered in that theatre of operations. An additional paper, illus-



trated by films, was read by Major W. L. L. Bennett on Atomic, Biological and Chemical warfare, drawing attention to the medical problems raised by the use of these weapons. These programs were very well received by all of the Undergraduate Societies and it is proposed to carry out a similar program next winter.

The first-year cadets received a course of lectures conducted by Contingent Officers on the subjects, "Introduction to the Army" and "Current Affairs". A course of lectures for the second-year cadets was given in Military Law, Organization and Administration and Military Writing. Subjects taken by the third-year cadets included Military History by Dr. D. E. Smith and Military Geography by Dr. W. C. Wonders. In addition to regular lectures, cadets were taken on visits to the North West Territories and Yukon Radio System and to 17 Regional Ordnance Depot, RCOC. Indoor rifle shooting was also carried out during the winter. A Current Affairs discussion period for all cadets was carried out once each month.

The year's outstanding social event was the very successful and well-attended Tri-Service Ball held in February at HMCS "Nonsuch".

#### **Report of W/C L. E. Gads, Commanding Officer of University of Alberta Squadron, R.C.A.F.**

Flight Cadets and Pilot Officers returned to the University of Alberta Squadron during the first three weeks of September, 1953, after having spent a successful summer of training at R.C.A.F. Regular Force Units. W/C L. E. Gads and F/O A. B. Weston also returned from training duties at R.M.C. Kingston and R.C.A.F. Station Clinton, respectively. F/L A. R. McAlpine was transferred to the Squadron from 435(T) Squadron to assume Resident Staff Officer duties from F/L R. A. Wallace, who had been transferred to Tactical Air Command.

As in the past, recruiting for the U. of A. Squadron commenced during University registration and continued until the end of January, 1954. During this period eighteen Flight Cadets were enrolled in the Squadron, including five students in the Regular Air Force Training Plan, one as F/C Serving Airman, and four female and eight male students in the University Reserve Training Plan. Additionally, one third-year cadet was accepted into R.O.T.P. from U.R.T.P.

The present recruiting policy indicates a marked increase in students who receive complete financial subsidization for their University training from the R.C.A.F. Indications are that the subsidization plan of R.O.T.P. may increase during future years. In addition to the subsidization under R.O.T.P., F/C W. Swensson-Rosenquist, who had formerly acted as orderly room clerk at the R.C.A.F. Orderly Room, is now being sponsored for University Engineering Training as a F/C Serving Airman.

During the 1953-54 academic year, four graduates from R.M.C. and now members of the R.C.A.F. Regular are being sponsored by the R.C.A.F. to attend the U. of A. for a fifth University year to obtain Engineering degrees. This policy will likely be continued, as many of the present R.O.T.P. candidates are attending Canadian Service Colleges and will likely be sponsored for one year at a civilian university.

The training program throughout the winter included lectures from members of the University staff as well as many lectures from other civilian and service speakers. Sixty-four hours' training was provided for each of the first, second, and third-year cadets. This is the maximum number of hours available for pay entitlement for U.R.T.P. There was a good attendance of students at all lectures and the training critique submitted by third-year students indicated the program to have been very successful.

Among the highlights of the winter activities were the R.C.A.F. band concert, the Tri-Service Ball, and the Remembrance Day Service. First-year cadets had the opportunity of a visit to R.C.A.F. Station Edmonton, where they had lunch in the officers' mess and a return airlift to Calgary in a C119 Flying Boxcar of 435(T) Squadron.

On the third of March, U. of A. Squadron enjoyed a visit by Staff Officers of R.C.A.F. Training Command Headquarters at Trenton, Ont. G/C Greenway, the Senior Personnel Staff Officer, and G/C Newson, the Senior Air Staff Officer, and their advisers were guests at a small informal dinner on the campus. The visiting party held discussions with the staff and student members of the squadron.

Of the present strength of seventy-two student members of this squadron, fifty will be taking summer training at R.C.A.F. Units throughout Canada and Europe. The remaining twenty-two will be graduating. Four Pilot Officers have been posted overseas to the United Kingdom, France and Germany. Other members of the squadron will be continuing with Aircrew, Technical and non-Technical Training at Units in Canada. W/C L. E. Gads, F/L A. R. Mc-Alpine and F/O A. B. Weston have been posted to the instructional staff at the Reserve Officers' School at R.M.C., Kingston.

#### **Report of Lt. Comdr. (L) R. E. Phillips, Commanding Officer of the University Naval Training Division**

Training commitments during the summer of 1953 caused a change in the locations for summer training. Thirteen first-year Cadets completed their training at H.M.C.S. Stadacona, Halifax, N.S., and thirteen second- and third-year Cadets received training at the West Coast.

Fifteen new-entry Cadets out of seventeen recruited were passed by a Selection Board, held in January, 1954. During the winter seven third-year Cadets were recommended for promotion to Sub-Lieutenant and seven Cadets were discharged. The present strength of the Division is as follows: First year, fifteen Cadets; second year, thirteen Cadets; third year, seven Cadets.

No Naval Cadets under the R.O.T.P. were in attendance at this University. Former Sea Cadets who joined the U.N.T.D. received five scholarships from the Navy League of Canada.

The officer employment for the year consisted of the Commanding Officer, a Staff Officer and six other officers. Five of these officers were full-time University students who have received commissions through the U.N.T.D.

#### **Extracts from the Report of the Director of the Department of Extension, Mr. Donald Cameron**

Members of the University staff gave an estimated 935 lectures to audiences of over 70,000, and 164 radio talks, during the year under review.



Extension short courses, classes and conferences have grown considerably in number over several years. During this year, 116 courses were offered at thirty-one centres. Aggregate attendance was 4,960 and, on the average, each involved between thirty and thirty-five hours of class time. The subject matter ranged from the arts, through business and professional studies, various University credit classes to leadership skills and technical problems in industry.

The program of credit and non-credit evening classes formed an important part of the Department of Extension's offerings during the year. Twelve hundred students were enrolled in thirty non-credit and nine credit classes organized in Edmonton, Lethbridge and Calgary.

The new program of management training included a six-week session in Advanced Management and a two-week course in Executive Development in which a total of nearly a hundred executives from across Canada enrolled. The need for this type of training and the growing support accorded this program is indicated by the rapidly increasing number of applications received.

There has been a considerable expansion in the field of leadership training, particularly in rural Alberta. The University, in co-operation with farm organizations, co-operatives and community groups, has conducted a number of courses and schools with the end in view of stimulating and assisting leaders in farm communities. Indications of success in this program are apparent in the follow-up work done by members of the staff.

Book stock in the Extension Library now stands at 37,000, not including 6,000 pamphlets and periodicals. General circulation has increased over the last year with open-shelf distribution at 53,000 and travelling libraries at 490, the latter serving communities not only in Alberta but in the Northwest Territories.

Circulation figures in the film library show an increase over the previous year, 21,000 reels in all being sent out. Although more community organizations now own their own library of filmstrips, the demand on the Visual Instruction Division for these teaching aids has grown. Circulation of slides has declined in consequence. Apart from film and filmstrip distribution, the Division has been responsible for promoting effective use of visual aids and the circulation and servicing of equipment. A marked increase in the number of films deposited by business organizations and the National Film Board for use has facilitated the work of the Division.

During the year the Petroleum Industry Training Service, which works in close co-operation with government and industry, provided training at convenient centres for 600 persons in technical subjects. An important aspect of the work of the Service lies in safety training and the development of attitudes more conducive to safe operating procedure.

The 1953 session of the Banff School of Fine Arts, both in terms of its enrolment, 535, and its program, was a substantial success. The recently completed Administration Building provided a handsome setting for the School's traditional Festival Week of recitals and performances. Supplementing the Summer Session was the usual program of practical aid through the Extension specialists in Music and Drama. Thirty-one courses in the fields of painting, music and drama were offered at twenty-seven centres to an aggregate enrolment of over 800 students.



# GENERAL STATISTICAL SURVEY

## Lectures

University teaching staff .....	658	
Department of Extension staff .....	277	
		935
Aggregate attendance .....		71,027
Number of radio talks:		
Extension staff .....	38	
Regular teaching staff .....	126	
		164
Conferences and short courses, Table II .....		4,960
Studio Theatre attendance .....		6,184
Feeders' Day attendance .....	700	
Breton Field Day .....	400	
Youngstown Field Day .....	100	
		1,200

## Visual Instruction

Number of sets of standard slides sent out .....	24	
Number of 2x2 slides sent out .....	229	
Number of times slides were used .....	188	
Total audiences viewing slides .....		6,850
Sets of filmstrips sent out .....	1,977	
Individual filmstrips sent out .....	4,255	
Number of times filmstrips were shown .....	2,752	
Total audiences viewing filmstrips .....		98,160
Sets of silent films sent out .....	267	
Sets of sound films sent out .....	4,745	
Number of reels of sound films sent out .....	20,205	
Total number of reels of moving picture films sent out .....	21,214	
Total sets of moving picture films sent out .....	5,012	
Total number of showings of films, sound and silent .....	6,618	
Total audiences viewing films, sound and silent .....		475,193
Number of times projection services supplied .....	372	

## Library and Debating Service

Number of travelling libraries in use .....	490	
Number of times sent out—		
Regular libraries .....	104	
Special libraries .....	386	
Recorded circulation .....		30,418

## Open-Shelf Circulation

Books:		
Adult .....	40,855	
Juvenile .....	14,387	
Banff School .....	6,419	
Plays .....	1,817	
Periodicals and Pamphlets .....	3,472	
		66,950
Number of package libraries for debaters sent out ..		24

## Study Group Material

Number of Citizens' Forum bulletins sent out .....	1,401
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## New Canadian Plays

Number of copies of New Canadian Plays sold ..	460
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## Publications

Press Bulletin, Seasonal Notes .....	10,000	
Press Bulletin, Feeders' Day Program .....	4,000	
		14,000
Agricultural Bulletins sent out during year.....	23,991	
Mimeos, circulars and other bulletins sent out .....	400	
		24,391
Total number of bulletins distributed since inception of service .....	586,037	
The New Trail, number sent out .....		12,560

## RECAPITULATION

Total aggregate attendance at lectures, conferences, schools and short courses, filmstrip programs, slides, moving pictures, Studio Theatre, field days .....	663,574
Total circulation of travelling library books, open shelf, package libraries for debaters, Citizens' Forum bulletins, New Canadian Plays.....	99,253
Total circulation of press bulletins, agricultural publications, The New Trail .....	50,951

## CONCLUSION

This forty-first annual report marks the end of a productive year in Extension activity and one which reflects credit on the University staff and those private organizations and individuals whose co-operation made the program possible.

University extension is essentially a co-operative endeavour. It represents a partnership between professional educational leadership and the countless individuals and organizations in the community who do the community's work. To be successful, there must be a constant two-way communication between each of the participating agencies, directed to the end of satisfying expressed and discovered needs. It is a source of gratification to the University that each year an increasing number of individuals, groups and organizations are coming to look upon it as an essential partner in the development of their programs. Out of that relationship there is developing a mutual confidence and respect based upon understanding of the role of each. Out of that relationship we are developing a University whose roots draw strength and sustenance from every segment of the community. The University in return provides inspiration, stimulus and a challenge to those who share its tasks.

The complete Annual Report on Extension Activities of the University of Alberta for the year ended March 31, 1954, which includes a report on the 1953 session of the Banff School of Fine Arts, is available in printed form.

**Table II—Short Courses, Classes and Conferences Arranged and Organized by the Department of Extension**

Course, Class, Conference	Sponsor	Place	Period	Hours' Duration	Attendance
1. Beginner's Ukrainian	Department of Extension	Edmonton	Oct. 19 - Dec. 21	15	16
2. Intermediate Ukrainian	Department of Extension	Edmonton	Oct. 19 - Dec. 21	15	18
3. Music Appreciation II	Department of Extension	Edmonton	Oct. 19 - Dec. 21	15	14
4. Beginner's Russian	Department of Extension	Edmonton	Oct. 13 - Apr. 1	80	20
5. European History—Napoleon	Department of Extension	Edmonton	Oct. 13 - Dec. 15	15	8
6. Effective Reading—Section I	Department of Extension	Edmonton	Oct. 14 - Dec. 16	15	50
7. Effective Reading—Section II	Department of Extension	Edmonton	Oct. 19 - Jan. 11	15	54
8. Ukrainian Literature	Department of Extension	Edmonton	Oct. 14 - Dec. 16	15	24
9. Comparative Religion	Department of Extension	Edmonton	Oct. 14 - Dec. 16	15	31
10. Petroleum Law	Department of Extension	Edmonton	Oct. 15 - Dec. 17	15	84
11. Income Tax Problems in Business	Department of Extension	Edmonton	Oct. 16 - Dec. 18	15	33
12. Conversational French—Section I	Department of Extension	Edmonton	Oct. 16 - Dec. 18	15	21
13. Conversational French—Section II	Department of Extension	Edmonton	Oct. 13 - Dec. 15	15	17
14. Public Speaking and Chairmanship—Section I	Department of Extension	Edmonton	Jan. 25 - Apr. 5	15	23
15. Public Speaking and Chairmanship—Section II	Department of Extension	Edmonton	Jan. 25 - Apr. 5	15	18
16. Sight Singing and Ear Training	Department of Extension	Edmonton	Jan. 25 - Apr. 5	15	11
17. Contemporary Philosophy	Department of Extension	Edmonton	Jan. 26 - Mar. 30	15	44
18. Clothing and Design	Department of Extension	Edmonton	Jan. 26 - Mar. 30	15	31
19. Law for the Layman	Department of Extension	Edmonton	Jan. 26 - Mar. 30	15	52
20. Music Appreciation I	Department of Extension	Edmonton	Jan. 27 - Mar. 31	15	32
21. World Affairs	Department of Extension	Edmonton	Jan. 27 - Mar. 31	15	19
22. Legal—Administrative Problems in the Oil Industry	Department of Extension	Edmonton	Jan. 28 - Apr. 1	15	67
23. Effective Writing	Department of Extension	Edmonton	Jan. 28 - Apr. 1	15	57
24. Landscaping the Small Lot	Department of Extension	Edmonton	Jan. 28 - Apr. 1	15	42
25. Conversational French—Section I	Department of Extension	Edmonton	Jan. 29 - Apr. 2	15	13
26. Conversational French—Section II	Department of Extension	Edmonton	Feb. 2 - Apr. 2	15	14
27. Effective Reading	Department of Extension	Calgary	Feb. 1 - Apr. 5	15	61
28. Law for the Layman	Department of Extension	Calgary	Feb. 1 - Apr. 5	15	51
29. Effective Writing	Department of Extension	Calgary	Feb. 2 - Apr. 6	15	34
30. Income Tax Problems in Business	Department of Extension	Calgary	Feb. 2 - Apr. 6	15	28
31. Real Estate Principles & Practice	Dept. of Extension and Alberta Real Estate Association	Calgary	Nov. 17 - Mar. 30	34	173
32. Real Estate Principles & Practice	Dept. of Extension and Alberta Real Estate Association	Edmonton	Nov. 18 - Mar. 31	34	172
33. Real Estate Principles & Practice	Dept. of Extension and Alberta Real Estate Association	Lethbridge	Nov. 16 - Mar. 31	34	46
34. History 10	Department of Extension	Edmonton	Oct. 6 - Apr. 9	75	28
35. Education 576	Dept. of Extension and Society of Industrial and Cost Accountants	Edmonton	Oct. 6 - Apr. 9	75	15
36. Accounting I	Department of Extension	Edmonton	Oct. 6 - Apr. 9	75	27
37. History 58	Department of Extension	Edmonton	Oct. 6 - Apr. 9	75	27
38. Mathematics 42-5	Department of Extension	Edmonton	Oct. 6 - Apr. 9	75	15



Table II—Continued

Course, Class, Conference	Sponsor	Place	Period	Hours' Duration	Attendance
39. Education 326	Dept. of Extension and Society of Industrial and Cost Accountants	Calgary	Oct. 6 - Apr. 9	75	17
40. Accounting I	Department of Extension	Calgary	Oct. 6 - Apr. 9	75	12
41. Household Economics II	Department of Extension	Lethbridge	Oct. 6 - Apr. 9	75	18
42. History 10	Department of Extension	Lethbridge	Oct. 6 - Apr. 9	75	15
43. Community Art Classes	Department of Extension	Medicine Hat	Oct. 23 - Mar. 27	48	65
44. Community Art Classes	Medicine Hat Art Club	Lethbridge	Oct. 29 - Mar. 12	72	59
45. Community Art Classes	Lethbridge Sketch Club	Brooks	Oct. 22 - Mar. 5	10	10
46. Community Art Classes	Brooks Sketch Club	Red Deer	Oct. 16 - Mar. 10	80	35
47. Community Art Classes	Red Deer Art Club	High River	Oct. 31 - Mar. 13	36	25
48. Community Art Classes	High River Sketch Club	Lacombe	Nov. 10 - Mar. 30	22	15
49. Community Art Classes	Lacombe Art Club	Wetaskiwin	Dec. 15 - Apr. 6	16	15
50. Community Art Classes	Wetaskiwin Art Club	Camrose	Feb. 5 - Apr. 9	12	15
51. Community Art Classes	Camrose Art Club	Lloydminster	Oct. 23 - Mar. 6	60	30
52. Community Art Classes	Lloydminster Art Club	Dawson Creek	May 25 - Jun. 10	25	25
53. Children's Art Classes—Junior	Department of Extension	Edmonton	Oct. 23 - Mar. 26	24	24
54. Children's Art Classes—Senior	Department of Extension	Edmonton	Oct. 24 - Mar. 27	15	15
55. Refresher Course in Therapeutics	Alberta Chiropractic Association	Edmonton	Mar. 29 - 30	11	12
56. Actor's Workshop—Senior	Studio Theatre	Edmonton	Oct. 26 - Apr. 10	80	21
57. Actor's Workshop—Advanced	Studio Theatre	Edmonton	Oct. 26 - Apr. 10	80	16
58. Public Speaking & Chairmanship	Can. Federation of Business and Professional Women's Club	Medicine Hat	Nov. 7 - Feb. 13	25	29
59. Music Appreciation	Department of Extension	Lethbridge	Feb. 3 - Apr. 7	20	110
60. Accounting II	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 6 - Mar. 16	40	44
61. Accounting I	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 5 - Mar. 17	40	41
62. Advanced Cost Accounting	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 8 - Mar. 18	40	14
63. Business Mathematics	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 9 - Mar. 19	40	31
64. Advanced Cost Accounting	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 6 - Mar. 16	40	20
65. Business Mathematics	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 8 - Mar. 18	40	18
66. Accounting II	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 9 - Mar. 19	40	21
67. Oilwell Safety Clinic	C.P.A., C.A.O.D.C., Workmen's Compensation Board and Dept. of Extension	Banff	Apr. 9 - 10	14	134
68. Soil Mechanics	Faculty of Engineering	Edmonton	Apr. 13 - 17	35	27
69. Ninth Sanitary Inspection Refresher Course	Alberta Public Health, Faculty of Agriculture, Department of Extension	Edmonton	Apr. 20 - 24	40	25
70. Fifteenth Annual Municipal Administration	Alberta Association of M.D. Secretaries, Treasurers, Department of Extension	Banff	May 19 - 21	17	75

71. School Administration	Alberta School Trustees Ass'n., Alberta S.D. Secretary-Treasurers Ass'n., Dept. of Education & Department of Extension	Edmonton	June 8 - 11	20	68
72. 35th Annual Farm Young People's Week	Secretary Treasurers' Ass'n., Dept. of Education, Faculty of Agriculture, School of Household Economics, School of Nursing & Department of Extension	Edmonton	June 9 - 17	64	148
73. Community Life Conference	Local Community Organization & Dept. of Extension	Beaverlodge	June 6 - 9	27	30
74. Community Life Conference	Local Community Organization & Dept. of Extension	Fairview	June 9 - 12	27	20
75. Leadership Workshop	F.W.U.A. Dist. and Dept. of Extension	Sylvan Lake	July 23	6	22
76. Wire Rope Drilling School	P.I.T.S.	Calgary	Sept. 15	3	52
77. Oil Computers School	Imperial Oil Limited	Edmonton	Sept. 21 - 25	30	11
78. A.C.W.A. Leadership Workshop	A.C.W.A.	Edmonton	Sept. 30	5	50
79. 4th Annual Leadership Course	F.U.A., A.W.P., U.G.G., U.F.A., Dept. of Extension	Edmonton	Oct. 26 - Nov. 7	110	42
80. Leadership Workshop	F.U.A.	Sangudo	Nov. 14	7	52
81. Leadership Workshop	F.U.A.	Clyde	Nov. 21	7	48
82. Leadership Workshop	F.U.A.	Vermilion	Nov. 28	7	70
83. Beginner's Writing Course	Canadian Authors' Association (Edmonton Branch)	Edmonton	Nov. 19 - Feb. 20	24	30
84. Underwriters Life Insurance Marketing Course	Northern Alberta Life Underwriters' Association and Department of Extension	Edmonton	Jan. 4 - 8	30	71
85. Committee Workshop	Drumheller Agricultural Society	Drumheller	Feb. 17 - 18	12	22
86. Committee Workshop	High River F.U.A. District	High River	Feb. 23 - 24	12	30
87. Nursing Institute	School of Nursing, Department of Health	Edmonton	Mar. 15 - 19	30	58
88. Nursing Institute	School of Nursing, Department of Health	Calgary	Mar. 22 - 26	30	47
89. Driver Training Instructor's School	P.I.T.S., A.M.A.	Edmonton	Sept. 24 - 25	10	17
90. Wire Rope Drilling Line School	P.I.T.S., Shell Oil Company	Radville Sask.	Oct. 7 - ....	3	24
91. Wire Drilling Line School	P.I.T.S.	Edmonton	Oct. 14	3	34
92. Wire Drilling Line School	P.I.T.S.	Edmonton	Oct. 28	3	44
93. Wire Drilling Line School	P.I.T.S., Canadian Gulf Oil	Stettler	Nov. 26 - 27	3	93
94. Drilling Management Training	P.I.T.S., C.A.O.D.C.	Calgary	Mar. 8, 9, 10, 22, 23, 24	35	23
95. Oilfield Cost Accounting	P.I.T.S., C.P.A.	Calgary	Mar. 11, 12, 13, 25, 26, 27	30	49
96. Drilling Management Training	P.I.T.S., C.A.O.D.C.	Edmonton	Mar. 15, 16, 17, 29, 30, 31	35	15
97. Oilfield Cost Accounting	P.I.T.S., C.P.A.	Edmonton	Mar. 18, 19, 20, Apr. 1, 2, 3	30	17
98. Oilfield Safety Clinic	P.I.T.S., W.C.B., C.A.O.D.C.	Stettler	May 30	3	31
99. Oilfield Safety Clinic	P.I.T.S., W.C.B., C.A.O.D.C.	Tofield	Aug. 4	3	72
100. Choral Leadership	Dept. of Fine Arts & Dept. of Extension	Calgary	Feb. 22 - Apr. 12	22	22
101. Teachers Refresher Course	Department of Extension	Calgary	Jan. 4 - Apr. 14	20	20
102. Sculpturing Course	Department of Extension	Edmonton	Oct. 25 - Mar. 26	9	9
103. Banff School of Fine Arts Summer Session	Banff School of Fine Arts	Banff	Jun. 21 - Sept. 11	535	535
104. Summer Short Course in Painting	Banff School of Fine Arts	Banff	Jun. 22 - Jul. 4	32	32

Table II—Continued

Course, Class, Conference	Sponsor	Place	Period	Hours' Duration	Attendance
105. Autumn Short Course in Painting	Banff School of Fine Arts	Banff	Aug. 17 - Sept. 12		15
106. Banff School of Advanced Management	Universities of Alberta, British Columbia, Manitoba & Saskatchewan	Banff	Feb. 1 - Mar. 13		69
107. Short Course in Executive Development	Dept. of Extension, Society of Industrial and Cost Accountants of Alberta	Banff	Mar. 22 - Apr. 3		26
108. Short Course in Leadership Techniques	Department of Extension	Banff	Oct. 25 - Nov. 7	80	45
109. English Usage for Articling Chartered Accountant Students	Department of Extension and Alberta Institute of Chartered Accountants	Edmonton	Oct. 10 - Nov. 28	24	79
110. S.M.G. Little Theatre Drama Workshop	Department of Extension	Sangudo Mayerthorpe Greencourt	Oct. 14 - Nov. 20	75	78
111. Coaldale Little Theatre Drama Workshop	Department of Extension	Coaldale	Nov. 3 - 5	14	26
112. Drama Workshop	Department of Extension	Camrose	Jan. 4 - Feb. 22	24	14
113. Drama Workshop	Department of Extension	Olds	Jan. 5 - Feb. 23	19	26
114. Drama Workshop	Department of Extension	Parkland	Feb. 3 - 5	10	44
115. Drama Workshop	Department of Extension	Queenstown	Feb. 11 - 13	19	19
116. Drama Workshop	Department of Extension	Cardston	Feb. 24 - 26	18	88
					<hr/> 4,960



## Report of Dr. R. D. Stuart, Director, Provincial Laboratory of Public Health

During 1953 the Provincial Laboratories carried out 277,374 examinations, the nature of which is shown in the accompanying tables. The work done has increased by 24,594 examinations or by 10%. To this increase the contribution of the Calgary Laboratory, directed by Dr. Shute, was notable, being almost 9,000 examinations or 15% of its previous total.

### *Special Trends*

No outstanding trend has developed this year. This is unfortunate, particularly in view of the evident increasing importance of virus infections to community health as demonstrated by the catastrophic epidemic of poliomyelitis in the Western Provinces. It is not too late to plan development of diagnostic facilities for such infections within a reasonable framework, but such a development will demand some provision of specialized accommodation and equipment outside our present compass.

*In the Central Provincial Laboratory*—In Edmonton, our recent provision of gonococcal culture facilities has amply justified the time and energy put into it. It is hoped that 1954 will see the Southern Branch Laboratory taking over the investigations of this nature applicable to its own area. The value of our program of routine bacterial sensitivity tests is, I think, being increasingly appreciated by clinical workers in view of the developing complexities of antibiotic therapy. In sanitary bacteriology the trend to centralization of water examinations under the control of health units has produced circumstances favourable to our development of special transport methods applicable to the widely dispersed sources of potable waters in the province.

Dr. Macgregor, Provincial Pathologist, in recording an increase in the number of Ascheim Zondek tests for pregnancy carried out by his department, has indicated that the frog test is now replacing the rabbit test. Frogs can readily be obtained commercially at all times of the year, cost considerably less than rabbits, and their use entails no expense for maintenance.

*In the Southern Branch Laboratory*—In Calgary, a trend away from its immediate service attachment to the Provincial T.B. Sanatorium has arisen owing to the impracticability of correlating laboratory and sanatorium working hours. Laboratory technicians must perforce return to Calgary at times fixed by available transport. This has re-emphasized the unfortunate siting of our public health laboratory with all its disadvantages, the provision of special transport, difficulties of attracting and retaining staff, etc. In the long view, a relocation of our Calgary Laboratory in the city itself would achieve economy and would undoubtedly result in an increasingly valuable service.

### *New or Supplementary Services*

Due largely to the crippling influence of staff resignations, often through the attraction of higher salaries in commercial undertakings, no developments worthy of note have occurred in the Central Laboratory this year. Supplementary, however, to our normal service, we have undertaken a survey of the incidence of Tularaemia and Brucellosis among the Indian population in collaboration with physicians of the Camsell Hospital.

In the Calgary Laboratory a diagnostic service in Mycology is being actively developed by Dr. Crichton, who has received special training in this work through a Provincial Training Grant. Dr. Crichton has also undertaken a

painstaking survey of the relationship between community serum antibody levels and the applications of the popular Widal technique to the diagnosis of enteric infections.

### *Regular Laboratory Services*

The general level of bacteriological investigations has been maintained in both laboratories. The epidemiological importance of our enteric investigations and particularly the valuable information on the spread of Salmonellosis derived through our excellent relationship with the Provincial Veterinary Laboratory has been favourably commented on in Ottawa. The occurrence in an Indian reserve at Vilna of a small typhoid outbreak caused by a type of typhoid bacillus not previously recorded in Canada is an interesting though puzzling example of such an epidemiological circumstance. The importance of our Indian populations as possible reservoirs of human epidemic diseases is also emphasized by the occurrence of four cases of diphtheria on the reserve at Cardston. An investigation under Dr. Shute's direction revealed that ten out of a total of 150 children at Gleichen were carrying virulent diphtheria bacilli in their throats.

The considerable increase in syphilis serology recorded under Wassermann and Kahn tests is mainly ascribable to a vigorous campaign by the Division of Social Hygiene. Special surveys have been undertaken in the far north of the province during the late summer and early fall with a view to determining the incidence of latent or unrecognized syphilis in the local populations. Except among the Indian and halfbreed population of the Lac La Biche area, no significant incidence of endemic syphilis was revealed.

### *Sanitary Bacteriology*

The very considerable increase in water examinations in both the Edmonton and Calgary Laboratories is due partly to the increase of commercial undertakings throughout the province and partly to the greater emphasis on the importance of bacteriological control of water supplies in general. Much of this stems from the increasing public health supervision now available through the increased number of health units.

### *Pathology*

The importance of this work is demonstrated by the continued demand on the surgical diagnostic tissue service. Both Edmonton and Calgary Laboratories report an increase in the number of specimens received. Dr. Macgregor and Dr. Shute independently comment on the value of this service, particularly to rural communities where the services of a tissue pathologist are not available, and both emphasize its importance in cancer diagnosis. In this last connection, the increasing reliance on smear techniques for the examination of bronchial washings, sputum, cervical secretions, etc., is noteworthy. Such techniques are speedy in performance but demand an extremely high level of professional skill and experience. The clinical acceptance of our findings reflects great credit on our pathologists and their staffs.

### *Staff*

In the Central Laboratory, Dr. C. R. Amies, M.B., B.S., M.D., D.T.M. and H., L.R.C.P., M.R.C.P. (London), M.R.C.S. (England), has recently arrived to fill the vacancy created by the transfer of Dr. J. H. Stirrat. Dr. Amies, who was



trained in the best laboratories in England, comes to this department from a senior position in the South African Institute of Medical Research. His wide experience in general bacteriology and his special acquaintance with virus research should prove of great value to the province. No other changes have occurred in the senior professional staff.

In the Calgary Laboratory, Dr. Shute returned to full duty from the early part of the year. His satisfactory recovery from the serious illness which caused grave concern at this time last year is most gratifying.

WORK PERFORMED IN THE PROVINCIAL LABORATORY, EDMONTON,  
DURING 1953

	Total, 1952	Total, 1953	In- crease	De- crease
Sputum Examination .....	1,441	1,547	106	.....
Diphtheria and Haemolytic Streptococci .....	4,915	3,467	.....	1,448
Typhoid Fever (agglutination test) .....	1,923	2,262	339	.....
Milk .....	1,972	1,615	.....	357
Water .....	5,250	6,284	1,034	.....
Guinea Pig Inoculations .....	2,073	2,325	252	.....
Miscellaneous Bacteriology .....	6,297	6,741	444	.....
Blood Cultures .....	832	900	68	.....
Enterobacteria and Intestinal Parasites .....	3,221	3,381	160	.....
Urinalysis .....	10	11	1	.....
Medico-Legal (blood, seminal, etc.) .....	7	8	1	.....
Cerebro-Spinal Fluids for the Wasserman Test ..	2,043	2,144	101	.....
Bloods for the Quantitative Kahn Test .....	923	898	.....	25
Bloods for the Wasserman Test .....	7,533	5,249	.....	2,284
Bloods for the Standard Kahn Test .....	7,352	5,154	.....	2,198
Bloods for the Presumptive Kahn Test .....	81,342	94,551	13,209	.....
Smears for Gonococcus .....	10,320	10,200	.....	120
Cultures for Gonococcus .....	5,460	8,704	3,244	.....
Pathological Histological Material .....	10,545	10,989	444	.....
Blood Smear Examinations .....	167	230	63	.....
Post-Mortem Examinations (Edmonton) .....	376	339	.....	37
Post-Mortem Reports (outside points) .....	147	189	42	.....
Ascheim Zondek Tests .....	339	107	.....	292
Frog Tests .....	73	408	335	.....
Fluids for Cancer Cells .....	410	268	.....	142
Cancer Cytology .....	75	69	.....	6
Bone Marrows .....	23	23	.....	.....
Cerebro-spinal fluids, examination (Colloidal, Gold, Pandy) .....	2,459	2,594	.....	.....
Bacteriological Examinations (P.M.) .....	70	107	37	.....
B. Abortus Examinations (agglutination test) ....	1,928	2,335	407	.....
P. Tularensis (agglutination test) .....	1,929	2,387	458	.....
Antibiotic Sensitiveness, Etc. (discs) ..	28,310	28,650	340	.....
Mycological Examinations .....	770	736	.....	34
Weil Felix .....	3	12	9	.....
Paul Bunnell Tests .....	731	928	197	.....
T.B. Smears and Cultures .....	2,401	3,215	814	.....
Autogenous Vaccine .....	19	24	5	.....
Cattle Bloods .....	.....	375	375	.....
Total .....	193,749	209,426	22,620	6,943



## Report of Dr. D. Shute, Director of the Provincial Laboratory of Public Health, Southern Branch

### *Introductory*

The year 1953 has again seen an increase in the services provided by the Southern Branch. The overall increase is of the order of 13.3%.

An attempt has been made to estimate the volume of work done for the Central Alberta Sanatorium. This includes all tests connected with the examination of material for the presence of Myco. tuberculosis (by direct, cultural and guinea pig methods) and various clinical pathology procedures such as blood counts, urinalyses and biochemical estimations. The conclusion reached was that rather less than 15% of our total derives from the in- and out-patient activities of the Sanatorium.

It is understood that the clinical laboratory is to be reopened in the Sanatorium in the near future, so that the Provincial Laboratory will handle even less of their material.

These facts add weight to my previously expressed opinion that if the laboratory was resited on the grounds of the Calgary Branch of the University of Alberta the service to the great majority of our users could be expedited, our excessive expenditure on transportation and trucking greatly reduced and staff-recruiting difficulties much eased.

### *Bacteriology*

The volume of work has increased in both the Miscellaneous and the Typhoid Departments.

The increase in Miscellaneous is partially accounted for by the occurrence of four cases of diphtheria on the Indian reserve at Cardston and the isolation of virulent diphtheria bacilli from the throats of ten out of the total of 150 children in the Indian Residential School at Gleichen.

The continued misunderstanding by practitioners of the value of the Widal Agglutination Test in the diagnosis of pyrexial illnesses led to a survey of the typhoid and paratyphoid antibody titres encountered in a cross-section of the population. The material resulting from this survey is being prepared for publication by Dr. Crichton and in the meanwhile we are continuing to advocate early blood cultures in all cases of undiagnosed pyrexia rather than the late examination of blood for specific antibodies which so frequently gives misleading and inconclusive results.

Following the attendance of Dr. Crichton at a postgraduate course in Medical Mycology at McGill University during the summer, a service for the preliminary investigation of fungi is now offered.

### *Pathological Histology*

In all, 2,736 tissue specimens were received during the year and from these 3,842 blocks processed and sectioned. These, with an approximate 10% requiring serial sectioning, fully occupied the time of one technician and one secretary.

Our records show that 276 definite diagnoses of cancer were made. This figure does not, of course, represent 276 individuals, as some of the tissues were from recurrences or distant metastases of cancer previously diagnosed.

The urge to make cancer diagnoses early has been reflected in this laboratory by an increase, from 105 to 165, of specimens received for investigation by Papanicolaou's cytological technique.

Equipment

The technical equipment is now practically complete and, with the exception of a camera for photo-micrography, it is not anticipated that any major addition will be required.

Buildings

The laboratory buildings have been painted throughout internally so that the working conditions are now clean and pleasant.

Staff

The modern vogue of the five-day week has caused, and will in the future cause, considerable difficulty in recruiting of both technical and secretarial staff.

Most business organizations and many of the Dominion, Provincial and Municipal Government offices now operate a five-day week, and this provides almost insuperable competition.

Unless some effort is made to fall into line with working conditions as they exist elsewhere, it is felt that the laboratory staff may dwindle away and a complete breakdown of our service will result.

WORK PERFORMED IN THE PROVINCIAL LABORATORY, SOUTHERN BRANCH, CALGARY, DURING 1953

Sputum Examinations .....	5,052
Diphtheria and Haemolytic Streptococci .....	838
Diphtheria Virulence Tests .....	28
Typhoid Fever (agglutination test) .....	1,313
Milk .....	1,136
Water .....	1,796
Guinea Pig Inoculations .....	1,199
Miscellaneous Bacteriology .....	985
Blood Cultures .....	129
Enterobacteria and Intestinal Parasites .....	278
Urinalyses .....	2,873
Medico-Legal .....	
Blood Counts .....	1,501
Biochemistry Investigations .....	380
Cerebro-Spinal Fluids for the Wassermann Test .....	1,146
Bloods for the Quantitative Kahn Test .....	313
Bloods for the Wassermann Test .....	2,616
Bloods for the Standard Kahn Test .....	2,431
Bloods for the Presumptive Kahn Test .....	27,719
Smears for Gonococcus .....	2,619
Van den Bergh Determinations .....	2
Pathological Histological Material .....	2,735
Blood Smear Examinations .....	94
Post-Mortem Examinations .....	4
Histology from Post-Mortems .....	7
Ascheim Zondek Examinations .....	
Bone Marrows .....	
Fluids for Cancer Cells .....	165
Cerebro-Spinal Fluid Examinations (Colloidal, Gold, Pandy) .....	1,128
Bacteriological Examinations (P.M.) .....	
B. Abortus Examinations (agglutination test) .....	1,313
P. Tularensis (agglutination test) .....	1,313
B. Militenses (agglutination test) .....	
Cattle Blood—Bang's Disease .....	
Miscellaneous T.B. Smears .....	739
Total .....	61,852



## Report of C. Emerson Noble, Director of the Industrial Laboratories

I would like to give you the following report for the Department of Provincial Analyst and Industrial Laboratories for the year July 1, 1953, to June 30, 1954.

### *Examinations and Analyses*

Acid .....	5	Fungi .....	3
Aggregate .....	2	Furs .....	4
Alcohol .....	2	Galena .....	2
Alfalfa .....	2	Gasoline .....	10
Alloys .....	1	Glauber's Salts .....	14
Antifreeze .....	9	Glass .....	1
Ash .....	3	Gold .....	5
Asbestos .....	3	Grain .....	4
Asphalt .....	19	Gravel .....	7
Babbit Metal .....	1	Gypsum .....	6
Barytes .....	3	Hair .....	9
Bentonite .....	3	Hay .....	4
Blood .....	214	Honey .....	2
Bones .....	1	Hydraulic Fluid .....	3
Brain (for alcohol) .....	66	Industrial Chemicals .....	16
Brewer's Grain .....	5	Insects .....	10
Brine .....	2	Insecticides .....	1
Breakfast Cereal .....	1	Iron Oxide .....	6
Butter .....	4	Iron .....	4
Candy .....	3	Jam .....	1
Carbon .....	4	Lard .....	1
Cement .....	7	Lead .....	1
Cerebral Fluid .....	5	Liquor—	
Cheese .....	1	Detailed for A.L.C.B. ....	49
Chlorine Compounds .....	13	Malt for A.L.C.B. ....	661
Clay .....	39	Miscellaneous .....	4
Cigarettes .....	2	Police Samples .....	94
Cleanser .....	3	Liquid .....	16
Cloth .....	13	Lime .....	5
Clothes .....	16	Limestone .....	290
Coal .....	58	Linseed Oil .....	1
Coffee .....	3	Machine Parts .....	11
Concrete .....	60	Magnesite .....	1
Copper .....	5	Margarine .....	1
Cores .....	1	Marl .....	32
Cream .....	2	Meat .....	20
2-4-D .....	2	Meat Meal .....	3
D.D.T. ....	1	Medical Compounds .....	1
Deposits .....	44	Medicine .....	2
Dolomite .....	1	Metal .....	3
Dust .....	4	Mica .....	1
Embalming Fluid .....	2	Milk .....	33
Fat .....	5	Minerals .....	6
Feed—		Miscellaneous .....	11
Animal .....	36	Mortar .....	2
Poultry .....	53	Mud .....	7
Concentrates .....	8	Mushrooms .....	1
Fertilizer .....	3	Narcotics (O.&N.D. exhibits) .....	117
Fire Exhibits .....	9	Oats .....	7
Fish .....	4	Obsidium .....	1
Flax .....	1	Oil—	
Flour .....	7	Crude .....	4
Food (Human) .....	21	Lubricating .....	12
Fossil .....	1	Protective .....	15
Fruit .....	4	Fuel .....	9
Fruit Juice .....	1	Edible .....	1



Oil Residue .....	2	Solutions .....	3
Ore .....	309	Steel .....	14
Paint .....	9	Stucco .....	2
Paint Remover .....	4	Sugar .....	3
Paper .....	5	Tankage .....	8
Pills .....	9	Tar .....	12
Pitchblende .....	1	Tile .....	2
Plants .....	2	Teeth .....	1
Plastic .....	2	Tobacco .....	1
Plaster .....	3	Tufa .....	1
Poison Exhibits—		Urine .....	102
Miscellaneous .....	5	Vegetables .....	1
Human .....	250	Vinegar .....	2
Police Exhibits (miscellaneous)	51	Volcanic Ash .....	1
Powder .....	13	Water—	
Pyrites .....	3	Sanitary .....	2,684
Quartz .....	2	Poison .....	3
Resin .....	1	Industrial .....	24
Rock .....	87	Wax .....	24
Rope .....	2	Weeds .....	2
Rubber .....	2	Wire .....	4
Rugs .....	1	Wheat .....	301
Sand .....	19	Wood .....	10
Sandstone .....	6	Veterinary Specimens .....	497
Salt .....	8		
Scale .....	8		
Schist .....	5		
Sediment .....	8		
Seed .....	2		
Shale .....	24		
Shakes .....	4		
Silage .....	6		
Silk .....	1		
Sludge .....	6		
Silver Polish .....	1		
Soap .....	40		
Soap Powder .....	2		
Soils .....	162		
Solder .....	2		
Starch .....	4		

#### *Engineering Materials*

Batteries .....	2
Concrete Cylinders .....	4,308
Electricians' Gloves .....	249
Insulators .....	86
Lightning Arresters .....	54
Resistance Box .....	2
Rubber Hose .....	23
Rubber Mats .....	7
Thermometers .....	1
Transformers .....	3
Wire Rope .....	1

Total .....11,832

The engineering materials were handled in conjunction with the Departments of Civil and Electrical Engineering. Various analyses were made as required for provincial government departments, such as Attorney General, Agriculture, Alberta Liquor Control Board, Mines and Forests, Lands and Minerals, Health, Provincial Secretary, Highways, and Public Works.

The Provincial Analyst is required to make control analyses for the Alberta Liquor Control Board re the Alberta breweries and distillers. Chemical examinations were made for the Provincial Laboratory as required, also for the Provincial Coroner and the Department of Pathology, and the hospitals. With analyses made for the Department of the Attorney General and the Provincial Coroner, necessary court evidence was given under Dominion and Provincial acts and regulations and the Criminal Code.

Necessary analyses were made for the police departments in Alberta and court evidence given when required.

The number of analyses made for the Department of Health and the police continues to increase at the most rapid rate, while more industrial analyses are done privately. Detailed analyses were made on 2,684 sanitary waters, 497 veterinary and 250 human specimens.

Many of the commercial analyses require considerable research, and also research was necessary on many methods of analysis.